
Ecosystem Restoration Program Plan

Responses to Comments

ECOSYSTEM RESTORATION PROGRAM PLAN

RESPONSES TO COMMENTS

General Responses

ERP 0-1

We will minimize the need to convert farmland. The economic impacts of land conversion are addressed at the programmatic level in the main body of the Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR). Project-specific analysis will be conducted in project-level environmental documents.

ERP 0-2

The CALFED Bay-Delta Program (CALFED Program) is committed to the basic concept that beneficiaries should share in the costs of environmental restoration. Through the use of cross-cut budgeting, funds from fishing licences, commercial permits, and taxes on boat fuels can be directed toward implementation of Ecosystem Restoration Program (ERP) projects.

ERP 0-3

The ERP has funded, and will continue to support, innovative strategies to restore the Bay-Delta ecosystem. The ERP will also fund research and monitoring to discover and evaluate new strategies.

ERP 0-4

Where public and private programs outside CALFED advance the goals or targets of the ERP, the programs will be counted and attributed toward ecosystem restoration. It is not possible for us to rely on a willing-seller program and be able to detail locations, acreage, and land use in a programmatic document. These specifics will be provided in project-specific documentation in later stages of the Program. Where we find it possible to replicate natural processes, we will need to include all affected land or limit the degree to which we pursue that particular process.

ERP 0-5

The CALFED Program is composed of many elements. Together, they are intended to provide benefits for all of California. The ERP is the element that calls for habitat restoration and species recovery.

ERP 0-6

This response has been consolidated with response ERP 0-5. Please refer to that response for the answer to your comment.

ERP 0-7

We appreciate the effort of the NCWA to develop an inventory of existing habitat protection in the Sacramento Valley. This report will aid in our commitment to coordinate restoration programs in the Central Valley.

ERP 0-8

We agree and will employ urban restoration where appropriate.

ERP 0-9

Where appropriate, CALFED or CALFED managing agencies will provide for in-lieu taxes.

ERP 0-10

We anticipate that funds to implement the Ecosystem Restoration Program Plan (ERPP) will be derived from both public and user sources. The exact allocation of responsibility has not been accomplished.

ERP 0-11

This comment is a true but incomplete description of the support for ecosystem restoration. Proposition 204, the major source of funds for implementation of the ERPP, was passed overwhelmingly by a vote of the people of California.

ERP 0-13

We recognize this concern. Our Multi-Species Conservation Strategy (MSCS) includes a model “Good Neighbor Policy.”

ERP 0-14

We agree.

ERP 0-15

We agree, but not all public land is suitable. Some site-specific or species-specific habitat will need to be accomplished on private land acquired from willing sellers.

ERP 0-16

This issue is analyzed in the Programmatic EIS/EIR and will be dealt with on a case-by-case basis in project-specific environmental documents.

ERP 0-17

Those water quality issues related specifically to the restoration of ecosystem health will be funded as an element of the ERP.

ERP 0-18

If the California Urban Water Agency's assumption is correct, it could cause CALFED to select a different conveyance alternative or to relocate its areas of habitat restoration.

ERP 0-19

The Preferred Program Alternative maintains a Delta common pool.

ERP 0-20

Proposition 204 requires an annual report by the Secretary for Resources. CALFED will assist the Secretary in preparing that report. We do not agree that Proposition 204 contains an implicit requirement for impact analysis of the ERPP. However, we accept responsibility for a programmatic analysis and subsequent project analysis under the California Environmental Quality Act (CEQA).

ERP 0-21

The ERPP describes CALFED's program to restore ecological health to the Bay-Delta ecosystem. The ERPP is a program plan and not an impact analysis document. Please also see response IA-7.14-1.2.

ERP 0-22

We do acknowledge that public "ecosystem dollars" do provide private benefits in terms of reduced regulatory constraints. We expect water users to contribute more "ecosystem dollars" in the future.

ERP 0-23

The State Water Resources Control Board (SWRCB) regulates the amount of Delta export. Neither CALFED nor its agencies can arbitrarily increase exports. The ERPP assumes no increase in exports without evidence of at-risk species recovery.

ERP 0-24

We agree.

ERP 0-25

Any funding for the CALFED programs derived from users will be based on the concept that beneficiaries will be identified and assessed.

ERP 0-26

We concur.

ERP 0-27

The MSCS is intended to provide the assurances suggested.

ERP 0-28

CALFED has commissioned a team of independent scientists to further evaluate the function of the entrapment zone and the changes in its location and volume that would best improve estuary production. Although the Preferred Program Alternative might cause some slight eastward shift under drought conditions, the ERP will increase the area of the zone by increasing tidal wetlands in Suisun Bay.

ERP 0-29

We concur.

ERP 0-30

We started the proposed study in 1998.

ERP 0-31

The MSCS (Chapter 7) discusses the types of assurances that will be considered by the fish and wildlife agencies at the time of the Record of Decision (ROD) and notice of determination.

ERP 0-32

The ERPP will increase flows into the Delta, and the EWA will manage and reduce the effects of diversions.

ERP 0-33

The Water Quality Program will be investigating limited land retirement as a partial solution to agricultural drainage problems in the San Joaquin Valley. Who will pay for the retirement will be determined by an analysis of who benefits.

ERP 0-34

In April 1999, 226 proposals were received, including 42 under the watershed topic area. From the June 1999 funding recommendations, two projects in the watershed category were approved for funding. Subsequently, based on direction from the Policy Group, additional watershed projects from the 1999 solicitation have been identified. Watershed projects have also been recommended for FY 2000 funding. Should both of those recommendations be approved, 12 additional proposals from the watershed category will receive funding through FY 2000.

ERP 0-35

Since 1997, the CALFED Program has selected ecosystem restoration projects through a widely publicized proposal solicitation process. The opportunity to apply for ecosystem restoration funding has been publicized through direct mail notifications, advertising in the State Contracts Register, and posting on the Program's web

site. The project selection process includes two levels for public review and input at the publicly noticed meetings of the Ecosystem Roundtable and the Bay-Delta Advisory Council (BDAC).

The CALFED Program has awarded ecosystem restoration grants to projects that meet several minimum requirements. Ecosystem restoration projects selected for ecosystem restoration grant funds are required to comply with all applicable laws and regulations, including the National Environmental Policy Act (NEPA) and CEQA and local permit requirements. All funded proposals are consistent with the ERP and the Strategic Plan for Ecosystem Restoration (Strategic Plan) objectives and they specify which ERP objectives and targets the proposal will meet. All funded proposals are consistent with each alternative considered in the Programmatic EIS/EIR and thus have not prejudiced the ultimate decision on the long-term CALFED Program. Further, funded proposals involving land acquisition have involved only willing sellers.

CALFED disagrees with the commentor that all of the projects listed in Attachment C to the comment letter involve significant adverse environmental impacts. Many of the projects do not include conversion of agricultural land to nonagricultural use, but rather provide that the farming activities would continue on those properties involved in a manner that is compatible with wildlife needs. As of May 1999, only 7% of the project and 13% of the total acreage affected by the ERP have resulted in land use conversions. Of the more than 20,000 acres of agricultural lands affected by the ERP, 68% have been maintained to some degree in agricultural use—either farmed or grazed.

In addition, the commentor appears to use the term “cumulative impacts” to mean the long-term Program-wide impacts, including impacts from ERP projects, on agricultural land uses. These Program-wide impacts on agricultural land uses are assessed in the Programmatic EIS/EIR for the 30-year or more term of the Program. Please see Chapter 4 and Section 7.1 in the Programmatic EIS/EIR. In addition, cumulative impacts of the CALFED Program and other related projects anticipated to result in similar environmental impacts on the same resources are considered in Chapter 3 in the Programmatic EIS/EIR and in Attachment A to the Programmatic EIS/EIR. Further, the programmatic impacts associated with the array of Category III projects are discussed in the Programmatic EIS/EIR, in that each of the projects is within the scope of the ERP. Please see response IP 4.3-1.

ERP 0-36

Ecosystem restoration projects involving acquisition and/or restoration of agricultural lands have been approved contingent on completion of the level of environmental review required by law. Where ecosystem restoration projects result in significant impacts to agriculture, appropriate mitigation would occur through project-specific environmental review. All funded proposals are consistent with each of the alternatives considered in the Programmatic EIS/EIR and, thus, they will not prejudice the ultimate decision on the long-term CALFED process.

Mitigation strategies for adverse impacts on agriculture are identified in the Programmatic EIS/EIR in Sections 7.1, 7.2, and 7.3. When projects implementing the Program are proposed at the site-specific, second-tier level, mitigation measures will be required that are consistent with the mitigation strategies and that are tailored to the specific project and its location. Please see Chapter 9 and response IP 4.0-2 for a description of the Mitigation Monitoring Plan. However, it is likely that even with mitigation measures, the Program will result in significant unavoidable impacts on agriculture. This impact is discussed in Sections 7.1, 7.2, and 7.3.

Please also see responses to comments ERP 0-35 and IP-4.3-1 (in the Implementation Plan Responses to Comments).

ERP 0-37

Please see responses IP 4.3-1; ERP 0-35; and ERP 0-36 regarding environmental documentation for ecosystem restoration projects. All land acquisitions under the CALFED Program to date have occurred solely as part of early implementation of non-flow-related ecosystem restoration activities. The CALFED Program has funded these acquisitions with ecosystem restoration grant funds, as specified in the 1994 Bay-Delta Accord and in California Proposition 204. Public disclosure of ecosystem restoration land acquisition projects has occurred in several ways: through publicity about the ERP projects by CALFED and by grant recipients; through disclosure occurring at publicly noticed Ecosystem Roundtable and BDAC meetings; and through the mandatory condition of funding that all projects include a plan for public outreach and local involvement, including notification of adjacent property owners.

ERP 0-38

Proposals for the 1999 solicitation were reviewed first by a panel of scientists with watershed expertise and also by an Integration Panel whose role was to develop a package of recommended projects across topic areas. Technical reviewers rely on information in the proposal, current project status, and best professional judgement in reviewing project proposals. For FY 2000, in an additional decision round for the 1999 proposals, Cottonwood Creek has been recommended for funding. The Interim Science Panel supported continued work in this watershed.

ERP 0-39

Comment noted. Each project is required to develop environmental documents and obtain necessary permits as a part of each proposal.

ERP 0-40

We concur. The ERPP and the Water Quality Program are designed to reverse the decline.

ERP 0-41

Unfortunately, appropriations to state agency budgets have not matched the need of those agencies to reimburse counties. CALFED will budget for local taxes as part of the original project cost to avoid this problem.

ERP 0-42

Studies are underway to determine whether the reestablishment of habitat in the Delta will degrade drinking water quality. If the studies indicate a negative effect, appropriate mitigation will be implemented.

ERP 0-43

The ERP geographic scope does not include areas outside the Central Valley that are served by the State Water Project (SWP) or Central Valley Project (CVP).

ERP 0-44

Recovery plans are being prepared, and their recommendations are incorporated into the ERPP.

ERP 0-45

We share this objective; however, the authority to assign responsibility for Delta outflow is vested with the SWRCB.

ERP 0-46

Implementation of the ERPP is estimated to cost from \$1.5 to \$2 billion over 30 years.

ERP 0-47

The ERPP does not affect water project operations. The EWA will be integrated into future considerations for water project operations.

ERP 0-48

The goal of the ERP is to rehabilitate the Delta foodweb in order to utilize organic carbon in the Delta food chain. If specific situations are identified where there is a conflict between the ERP and drinking water quality, a decision will be made by CALFED policy makers concerning the appropriate mitigation.

ERP 0-49

Any new or additional diversion will be subject to the requirements of the SWRCB and CEQA.

ERP 0-50

The ERPP and the MSCS provide the goals for recovery and sustainability.

ERP 0-51

The Suisun Marsh Preservation Act is law. The ERP provides specific actions to improve the ecological health of the marsh.

ERP 0-52

The standards for the entrapment zone or X2 are set by the SWRCB. Only the Board can change them.

ERP 0-53

All alternatives include the ERPP.

ERP 0-54

The presence of Lake Oroville cuts off the Upper Feather River from the Delta.

ERP 0-55

A fundamental conceptual model in the ERPP is the reestablishment of habitat in the Bay-Delta ecosystem. While there are differences of opinion among experts as to where, how, or how much habitat should be established, there is no disagreement as to the dependency of species on habitat.

ERP 0-56

We have responded to the comments of Save the Bay separately.

ERP 0-57

We will consult with the California Department of Transportation (CalTrans) to avoid impacts.

ERP 0-58

Time value or seasonal value is a basic assumption of the ERP. In our environmental water program, we will be testing this assumption.

ERP 0-59

The ecosystem component of the Water Quality Program identifies problems associated with degraded environmental water quality and proposes the means for restoration.

In Phase III of the CALFED Program, environmental water quality will be managed as an element of the ERP.

ERP 0-60

We concur. The evaluation is underway. We anticipate the use of dredged material in the Delta and elsewhere.

ERP 0-61

Assurances that the ERP will be implemented are tied to the MSCS and the ESA permits needed to implement elements of the CALFED Program.

ERP 0-62

We concur. That coordination and integration will occur in Phase III of the CALFED Program.

ERP 0-63

The ERP was developed as a plan to restore ecological health. It was not predicated on any particular level of funding.

ERP 0-64

We concur. The MSCS discusses this issue.

ERP 0-65

CALFED considers clear dredge material from San Francisco Bay to be a significant potential source of material for ecosystem restoration and levee repair in the Delta. We have funded studies by the Regional Water Quality Control Board to determine the suitability of using this material in the Delta. If found suitable, we will further analyze the costs.

ERP 0-66

CALFED has continued to refine its assurances package. The final assurances will most likely be included in the ROD.

ERP 0-67

Funding for the ERP will be through state general obligation bonds (Proposition 204), federal appropriations (the Bay-Delta Act), user fees, and existing agency budgets.

ERP 0-68

We have been consulting with that program for several years.

ERP 0-69

Your position is correct. The SWRCB establishes water rights and water quality standards. CALFED incorporated SWRCB water rights and water quality standards into the assumptions used in modeling the water system, as described in Section 5.1 and Attachment A in the Programmatic EIS/EIR.

ERP 0-70

Agricultural water use efficiency is discussed in the Water Use Efficiency Program Plan, and toxic runoff is discussed in the Water Quality Program Plan.

ERP 0-71

As a matter of policy, CALFED will not retire agricultural land to conserve water. We may retire land as a partial solution to toxic drainage problems.

ERP 0-72

The ERP is designed to restore ecosystem health. The reduction of conflict could result in continued export of water.

ERP 0-73

The ERPP sets out a vision and programmatic prescription for the restoration or rehabilitation of ecosystem health of the Bay-Delta ecosystem. Any program or project that advances the goals or objectives of the ERP will be credited or counted as achieving part of all of a particular objective. This does not, however, include projects or programs that mitigate new impacts to the ecosystem. The ERP tries to establish a new higher baseline of ecosystem health. Mitigation is an effort to maintain the existing baseline.

ERP 0-74

Where goals, objectives, and targets overlap, the ERP has incorporated the plans of other major restoration programs working within the ERP geographic area. In many cases, other programs are more focused geographically or focused on a particular species or habitat. The ERP is intended to focus on the ecological health of the Bay-Delta.

ERP 0-75

The ERP identifies the need to restore 29,000 to 29,500 acres of seasonally managed wetlands. We do not consider these to be “engineered civil works” but rather natural habitat which once, prior to their conversion to irrigated agriculture, amounted to millions of acres. Because we are working at the programmatic level and not the site-specific project level, we do not know the details of specific management of the proposed wetlands.

ERP 0-76

The goals and targets of the Senate Bill (SB) 1086 program have been incorporated into the ERP. Where the Central Valley Project Improvement Act (CVPIA) has been authorized to address specific issues that relate to the ERP objectives, the CVPIA has been incorporated into the ERP. The ERP targets are not additive. The National Marine Fisheries Service (NMFS) has not yet prepared recovery plans for steelhead trout or spring-run chinook salmon. Therefore, we do not know if the ERP actions directed at these species are adequate to serve as the recovery plans. The winter-run chinook salmon recovery plan was incorporated into the ERP for the splittail; the ERP includes all actions proposed in the Delta Native Fishes Recovery Plan.

ERP 0-77

Our priorities are being developed by the Interim Science Board, the ERP Focus Group, and the Policy Group. We intend to continue our screening efforts.

ERP 0-78

The ERP is a plan based on ecosystem recovery. It focuses on restoration or rehabilitation of ecosystem processes and functions. The MSCS looks at individual species and specific actions needed for their recovery. Integration of the two approaches will occur through implementation. Implementation will follow the basic ERP approach, but recovery of listed species will always be a priority.

ERP 0-79

The ERP is designed to restore ecological health. This new baseline will be maintained through mitigation of any new facilities.

ERP 0-80

We will prepare site- or project-specific environmental documentation for each of the projects you cite as potentially significant.

ERP 0-81

The Natural Heritage Institute (NHI) comments on the 1997 review draft of the ERPP were used to refine the draft sent out for formal review in 1999. NHI repeated many of its specific comments in its comment letter on the June 1999 Draft Programmatic EIS/EIR. Responses to these comments are identified as letter 1199 and are located throughout the response to comment document. The three appendices attached to the 1997 letter were reviewed by CALFED staff and were used to refine the June 1999 Draft ERPP and to focus the current ongoing work effort.

ERP 0-82

We concur. We will include the fry stages of salmonids as part of our monitoring program.

ERP 0-83

The ERPP and the EWA will not replace authorities granted by the federal or state ESAs.

ERP 0-84

The EWA is part of the long-term solution.

ERP 0-85

We concur. Please refer to the Water Quality Program Plan for specifics.

ERP 0-88

We concur. Ocean conditions may play a significant role in the growth and survival of anadromous species. Adverse or beneficial conditions may dictate the degree to which we achieve our goals.

ERP 0.1-1

We do not know the net overall impact of the ERP on the usable amount of water entering the Delta from its tributary streams. The experts disagree, and very little research exists to utilize in modeling. We do know that riparian habitats and wetlands generally use more water than typical agricultural crops. The use of water in a tidal wetland is very complicated, but it probably does result in more evaporation and transportation than for a typical Delta agricultural crop.

On the other hand, the ERP will be augmenting in-stream flows by about 400,000 acre-feet in an average year. Through its meander projects, setback levees along streams, and development of bypasses and floodplains, the ERP will attenuate floodflows. By spreading out floodflows over a somewhat longer period of time, the Delta could remain out of balance longer and more unstored water could be available for diversion or use in the Delta. Virtually all of the ERP riparian, floodplain, and wetland habitat will increase groundwater supplies through

recharge. In the Delta and Suisun Bay, National Wildlife Refuge's (NWR) preliminary modeling suggests that the ERP could contribute to increased water supplies or water quality in two ways. First, strategically developed shallow-water habitat and islands in areas like Frank's Tract and Big Break can reduce tidal excursions into the Delta and can result in a reduced need to release stored fresh water to repel salt water. Second, the preliminary modeling and experience associated with the 1997 levee failures in the Suisun Marsh indicate that strategic breaching of levees in the Suisun Bay area can broaden the tidal prism and reduce the amount of stored fresh water needed to repel salt water and maintain Delta water quality standards.

All of these factors will need to be considered, modeled, and evaluated before any meaningful net balance of water use by the ERP can be documented.

ERP 0.2-1

Habitat enhancement and restoration are essential elements of both the ERP and MSCS. The diversity and quality of habitats in the Bay-Delta watershed are critical to maintaining and recovering threatened and endangered species. These habitats are created and maintained by a variety of ecological processes, including streamflow, channel migration and meander, and Delta hydraulics.

CALFED is addressing numerous public comments directed at the habitat acreages presented in both the ERP and MSCS. One of the difficulties reviewers have encountered is due to the fact that the ERP and MSCS habitat designations differ in definition, and the MSCS includes habitats not addressed in the ERPP. The habitat recommendations, nonetheless, are intended to complement one another.

The primary purpose of this response is to clarify the recommended target acreages in the ERPP and MSCS.

The following sections discuss the various habitats recommended for enhancement or restoration during the 30-year implementation phase of the ERP. Generally, recommendations fall into one of two classes: enhance or restore.

- Enhanced habitat indicates that existing habitat is improved without acquisition of additional acreage. Willing landowners may benefit by enhancing existing habitat through conservation easements. Existing land uses may be altered but do not change significantly under enhancement.
- Restored habitat indicates that additional land is acquired from willing sellers through direct purchase or conservation easement and converted to the appropriate habitat. Existing land uses change under restoration.

Each habitat type is discussed, including its linkage with the habitat recommendations from the MSCS. In some instances, the ERP and MSCS recommendations differ and an explanation of the difference is presented.

There is virtually no certainty that the ERP habitat recommendations will be fully implemented during the 30-year implementation phase. The adaptive management process and the degree to which initial restoration efforts succeed or fail to reach ecological targets for species recovery will drive the magnitude of implementation. The ERP fully acknowledges the scientific uncertainty related to habitat management and restoration and, therefore, must rely on the scientific method and adaptive management to refine the course of restoration beyond the first 7 years of implementation.

Habitat Discussions

Tidal Perennial Aquatic Habitat. Tidal perennial aquatic habitat consists of the estuary's edge waters, mudflats, and other transitional areas between open-water habitats and wetlands. Similar habitats are defined by the San Francisco Bay Area Ecosystem Wetlands Goals Project (1999) as elements of tidal baylands that include mudflats, sandflats, and shellflats. It also includes marine and estuarine subtidal areas that are less than 2 meters deep at low water and shallow, tidally influenced riverine areas.

The ERP recommends restoring 7,000 acres of tidal perennial aquatic habitat in the Sacramento-San Joaquin Delta Ecological Management Zone and 1,500 acres in the Suisun Marsh/North San Francisco Bay Ecological Management Zone.

The 8,500 acres of tidal perennial aquatic habitat in the ERPP is consistent with acres reported in the MSCS.

Nontidal Perennial Aquatic Habitat. Nontidal perennial aquatic habitat used here includes permanent open water that is not subject to tidal influence. Nontidal perennial aquatic habitats include oxbow lakes, drainage divide ponds, agricultural drains, small farm ponds, industrial ponds, and ponds managed for waterfowl. This habitat is similar to the San Francisco Bay Area Ecosystem Wetlands Goals Project description of diked marsh, salt pond, and storage/treatment pond.

The ERP recommends restoring 4,200 acres of nontidal perennial aquatic habitat: 2,600 acres of nontidal perennial aquatic habitat in the Sacramento-San Joaquin Delta Ecological Management Zone and 1,600 acres in the Suisun Marsh/North San Francisco Bay Ecological Management Zone.

The total of 4,200 acres reported in the ERPP is greater than the 1,600 acres of lacustrine habitat reported in the MSCS. The MSCS reports the 2,600 acres of ERP nontidal perennial aquatic habitat in the Delta as a component of the MSCS nontidal freshwater permanent emergent habitat.

Saline Emergent Wetland Habitat. Saline emergent wetland habitat includes the portions of San Francisco, San Pablo, and Suisun Bays and the Delta that support emergent wetland plant species that are tolerant of saline or brackish conditions.

The ERP recommends restoring 7,500 to 12,000 acres of additional habitat and enhancing 6,200 acres of existing saline emergent wetland habitats in the Suisun Marsh/North San Francisco Bay Ecological Management Zone.

The 7,500 to 12,000 acres of saline emergent wetland habitat proposed for restoration and the 6,200 acres proposed for enhancement in the ERPP are consistent with the acreages presented in the MSCS.

Fresh Emergent Wetland Habitat (Tidal). Fresh emergent wetlands include all tidally influenced freshwater areas in the inter-tidal zones of the Delta that support emergent wetland plant species that are not tolerant of brackish water conditions. Areas that support fresh emergent wetland habitat include portions of Delta sloughs, midchannel islands, and other vegetated shallow-water areas.

The ERP recommends restoring 30,000 to 45,000 acres of fresh emergent wetland habitat in the Sacramento-San Joaquin Delta Ecological Management Zone.

The MSCS reports 30,200 to 45,800 acres of tidal fresh emergent habitat. The MSCS calculation includes the ERP midchannel island habitat (200 to 800 acres) under the MSCS tidal fresh emergent category.

Fresh Emergent Wetland Habitat (Nontidal). Nontidal fresh emergent wetland habitat includes permanent natural and managed freshwater marshes and wetlands. The ERP recommends restoring 17,000 acres of nontidal fresh emergent wetland habitat in the Sacramento-San Joaquin Delta Ecological Management Zone.

The MSCS recommends restoring 19,600 acres of nontidal freshwater permanent emergent habitat. The difference is that the MSCS includes the 2,600 acres of ERP nontidal perennial aquatic habitat in the MSCS category of nontidal freshwater permanent emergent habitat.

Midchannel Islands and Shoals. Midchannel islands and shoals are unique types of remnant tidal perennial aquatic and fresh emergent habitat present in the Sacramento-San Joaquin Delta.

The ERP recommends restoring 200 to 800 acres of midchannel islands and 500 acres of shoal habitat throughout the Delta.

The acreage reported for midchannel islands in the ERPP is consistent with the acreage reported in the MSCS, which is reported under the MSCS tidal fresh emergent habitat category.

- The MSCS has been revised to include 500 acres of MSCS lacustrine (ERP shoal) habitat throughout the Delta.

Seasonal Wetlands. Seasonal wetlands include natural and managed wetland areas. Seasonal wetlands are comprised of vernal pools, wet meadows or pastures, lands intentionally flooded on a seasonal basis, state and federal refuges, privately owned waterfowl hunting clubs, private environmental refuge lands, and seasonally flooded areas within a stream course or its floodplain. (Vernal pools are a special type of seasonal wetland discussed following this section on seasonal wetlands.)

The ERP recommends enhancing 308,125 acres of existing seasonal wetlands and restoring 29,000 to 29,500 acres. (This is a correction of the acreage reported in the June 1999 ERPP.) These acreages include the categories shown in the table that follows.

ECOLOGICAL MANAGEMENT ZONE	ACRES FOR ENHANCEMENT	ACRES FOR RESTORATION
Sacramento-San Joaquin Delta	4,000	28,000
Suisun Marsh/North San Francisco Bay	58,000	1,000-1,500
Butte Basin	36,150	None
American River Basin	5,150	None
San Joaquin River	172,800	None
Feather River/Sutter Basin	3,590	None
Colusa Basin	<u>28,435</u>	<u>None</u>
Seasonal wetland total	308,125	29,000-29,500

- The corrected acreage reported in the ERPP for seasonal wetland restoration is the same as the 29,000 to 29,500 acres of managed seasonal wetlands reported in the MSCS.

- The 308,125 acres of enhanced seasonal wetlands reported in the ERPP is the same as the acreage reported in the MSCS.

Vernal Pools. Vernal pools are natural seasonal wetlands with natural hydrologic conditions that are dominated by herbaceous vegetation and annual pond surface water or maintain saturated soils at the ground surface for a portion of the year of sufficient duration to support facultative or obligate plant species.

The ERP provides only one recommendation for vernal pool restoration: 100 acres in the Suisun Bay and Marsh Ecological Management Unit of the Suisun Marsh/North San Francisco Bay Ecological Management Zone.

The proposed action is to acquire and manage 100 acres of existing vernal pools and 500 to 1,000 acres of adjacent buffer area. The buffer area could include perennial or annual grassland, riparian areas, or other types of transitional habitat associated with vernal pool complexes. The riparian and riverine aquatic habitat and perennial grassland habitat recommendations for the Suisun Marsh/North San Francisco Bay Ecological Management Zone are inclusive of the 500 to 1,000 acres of buffer area for vernal pool management. The 500 to 1,000 acres of buffer area are not additive to other acreages.

The ERP and MSCS are consistent in identifying 100 acres of vernal pools for acquisition and management.

Agricultural Lands. The ERP encourages “wildlife-friendly” agricultural practices to support existing agricultural productivity while contributing to overall improvements for species dependent on pastures, harvested grain fields, and crops. Agricultural lands include farmed lands that are not seasonally flooded; however, seasonally flooding grain fields is a wildlife-friendly agricultural practice. The MSCS uses the terms “upland cropland” and “seasonally flooded agricultural lands” interchangeably for what is termed in the ERPP as agricultural lands providing “wildlife-friendly” agricultural practices. The MSCS acreages for these categories therefore should not be added together with the ERP acreages. The acreages are the same.

The ERP recommends developing and implementing “wildlife-friendly” agricultural practices throughout much of the ERP focus area. The general recommendations were developed to be consistent with the North American Waterfowl Management Plan and the Central Valley Habitat Joint Venture. The underlying premise for these recommendations was to implement a program with minimal effects on existing agricultural land uses. Participating landowners would be reimbursed for potential direct loss of income to implement wildlife-friendly agricultural practices.

ECOLOGICAL MANAGEMENT ZONE	ACRES FOR ENHANCEMENT	ACRES FOR RESTORATION
Sacramento-San Joaquin Delta	40,000-75,000	None
Colusa Basin	111,285	None
Butte Basin	108,832	None
American River Basin	20,948	None
San Joaquin River	15,290	None
Feather River/Sutter Basin	<u>57,578</u>	None
Wildlife-friendly acres total	353,933-388,933	None

The ERP and MSCS are consistent in the identification of 353,933-388,933 acres of lands to be enhanced for “wildlife-friendly” agricultural practices. There are no restore-type measures proposed for wildlife-friendly practices on agricultural lands.

Perennial Grassland. Perennial grasslands include upland vegetation communities dominated by native and introduced perennial grasses and forbs, including non-irrigated and irrigated pasturelands.

The ERP recommendations for perennial grassland include restoring 4,000 to 6,000 acres in the Sacramento-San Joaquin Delta Ecological Management Zone and 5,000 acres in the Suisun Marsh/North San Francisco Bay Ecological Management Zone.

The ERP and MSCS are consistent in reporting a range of 9,000 to 11,000 acres of perennial grasslands proposed for restoration.

Inland Dune Scrub. Inland dune scrub includes vegetated stabilized sand dunes associated with river and estuarine systems.

The ERP recommends enhancing 50 to 100 acres of low- to moderate-quality Antioch inland dune scrub habitat in the Sacramento-San Joaquin Delta Ecological Management Zone.

The ERP and MSCS are consistent in reporting 50 to 100 acres of inland dune scrub habitat for enhancement.

Riparian and Riverine Aquatic Habitat. This broad type of habitat includes riparian and shaded riverine aquatic habitat. Riparian vegetation is comprised of scrub, woodland, and forest habitats that support wildlife species. Riparian aquatic habitat is shaded by riparian vegetation. The MSCS includes additional designations: valley riverine aquatic, montane riverine aquatic, valley/foothill riparian, montane riparian, valley/foothill woodland and forest, and montane woodland and forest.

Generally, the June 1999 ERPP reported a mix of acres and miles of riparian and riverine aquatic habitats. In this analysis, miles of riparian are converted to acres using the following assumption: unless otherwise noted in the ERPP, riparian stream corridors are assumed to be 100 feet wide. This equates to 12.12 acres of riparian habitat per mile of corridor for one side of a stream, or 24.24 acres per mile including a riparian corridor on each side of the stream. Miles of riparian corridor in the Delta and Suisun Marsh reported in the ERPP have been converted to acres using 12.12 acres per mile. All other riparian acreages are based on 24.24 acres per mile. This is deemed sufficient for impact analysis purposes, as some riparian habitat will be present only on one side of a stream channel and the actual width of the corridor will vary greatly from a screen of riparian vegetation in some areas to dense riparian stands that may be 200 feet wide. Riparian acres for the Delta and Suisun Marsh were calculated from the prescriptions in the riparian and riverine aquatic habitat targets presented in Volume 2 of the ERPP.

The ERP recommends restoring 10,551-11,789 acres of riparian corridors, as follows: 1,284-1,195 in the Sacramento-San Joaquin Delta Ecological Management Zone; 200-300 acres in the Suisun Marsh/North San Francisco Bay Ecological Management Zone; 3,151 acres in the Cottonwood Creek Ecological Management Zone; 484 acres in the Butte Basin Ecological Management Zone; 3,720 acres in the Eastside Delta Tributaries Ecological Management Zone; 1,212 acres in the San Joaquin River Ecological Management Zone; and 500-1,000 acres in the West San Joaquin Ecological Management Zone.

- The MSCS has been corrected to reflect these acreages for restoration.

Summary of Total Ecosystem Restoration Program Acreages by Type of Habitat

ECOSYSTEM RESTORATION PROGRAM PLAN	TOTAL ENHANCE (ACRES)	TOTAL RESTORE (ACRES)	MULTI-SPECIES CONSERVATION STRATEGY
HABITAT TYPE			HABITAT TYPE
Tidal perennial aquatic	None	8,500	8,500 acres of tidal perennial aquatic
Nontidal perennial aquatic	None	4,200	2,600 acres of nontidal freshwater permanent emergent and 1,600 acres of MSCS lacustrine habitat
Saline emergent wetland	6,200	7,500-12,000	7,500-12,000 acres of saline emergent plus tidal slough acreages and enhance 6,500 acres
Fresh emergent wetland	None	30,000-45,000	30,200-45,800 acres of tidal freshwater emergent plus ERP midchannel island acreages
Fresh emergent wetland (nontidal)	None	17,000	19,600 acres of nontidal freshwater permanent emergent (includes 17,000 acres of ERP nontidal freshwater emergent wetlands and 2,600 acres of ERP nontidal perennial aquatic)
Midchannel island	None	200-800	200-800 acres reported as MSCS tidal freshwater emergent
Shoal	None	500	500 acres added to MSCS lacustrine habitat
Seasonal wetland	308,125	29,000-29,500	29,000-29,500 acres of MSCS managed seasonal wetlands
Vernal pool	None	100	100 acres of MSCS natural seasonal wetland
Agricultural land (wildlife-friendly practices)	353,933-388,933	None	353,933-388,933 acres of MSCS seasonally flooded agriculture and upland cropland
Perennial grassland	None	9,000-11,000	9,000-11,000 acres of MSCS grassland
Inland dune scrub	None	50-100	50-100 acres of MSCS inland dune scrub
Riparian and riverine aquatic	None	10,551-11,789	10,551-11,789 acres of MSCS valley/foothill riparian and montane riparian
Stream channel meander	None	18,000-26,000	MSCS includes these as acres of riparian habitat to be enhanced, not restored
Tidal and Delta slough	None	911-1,999	Included in MSCS tidal perennial aquatic (150-330 miles of tidal or Delta slough)

Please note: The total acreage for riparian and riverine aquatic habitat has not previously been calculated or reported.

Stream Channel Meander. Please note: stream channel meander is not an ERP habitat type. It is described in the ERPP as an ecological process. Acreages identified for stream meander are included for impact analysis purposes as a separate category to present the area identified for protection in the Sacramento River Conservation Area between Red Bluff and Colusa. Stream channel meander supports the natural regeneration of riparian and riverine aquatic habitat and other types of habitat essential to the recovery of threatened and endangered species but is not a type of habitat.

The long-term restoration and enhancement target for preserving and improving the stream meander corridor along the Sacramento River Conservation Area is to purchase in fee or through conservation easement 16,000 to

24,000 acres; acquire 1,000 acres in the Feather River/Sutter Basin Ecological Management Zone; and acquire 1,000 acres in the East San Joaquin Ecological Management Zone.

- The MSCS accounts for stream meander acreages by including them in the acres of riparian habitat to be enhanced.

Tidal and Delta Sloughs. Sloughs are natural tidal channels that connect fresh and saline emergent wetlands, other shallow-water habitats, and rivers within the Delta or Bay. Sloughs vary in depth and width, and have gently sloped and vegetated sides.

The ERPP recommends restoring 65-160 miles of sloughs in the Sacramento-San Joaquin Delta Ecological Management Zone (395-970 acres), 50-100 miles in the Yolo Bypass (303-606 acres), and 35-70 miles of sloughs in the Suisun Marsh/North San Francisco Bay Ecological Management Zone (213-423 acres).

- The ERPP has been changed from the 100-150 miles reported in the June 1999 ERPP to correct figures of 65-160 miles.

In the MSCS, tidal and delta sloughs are accounted for in tidal emergent, tidal perennial aquatic, and riparian. These are not additive.

Please note: The total acreage of tidal, Delta, and Yolo Basin sloughs has not been previously calculated or reported in the ERPP. The ERPP reports tidal and Delta sloughs as miles of sloughs to be restored. To improve evaluation of restoration of slough habitats, slough miles have been converted to acres. The single assumption for the calculation was that average slough width was 50 feet (6.06 surface acres per mile). This width reasonably describes the range of widths present in natural or restored sloughs, with upper branches being considerably less than 50 feet wide and lower sections exceeding 50 feet.

Cumulative Impact. A subjective assessment of the cumulative impact of the full implementation of all recommended habitat and stream corridor restoration measures is that agricultural lands would be moderately affected even with the implementation of presently identified offsetting measures.

ERP 0.3-1

Unfortunately, the ERPP is very large and does not lend itself to consolidation. Volume 2 of the ERPP includes a substantial amount of duplication because we drafted the discussion of each ecological zone to be a stand-alone discussion. Much of what you suggest will be accomplished by revisions to the Strategic Plan.

Volume I: Ecological Attributes of the San Francisco Bay-Delta Watershed

General Responses

ERP I 0-2

We recognize the role that ocean conditions play in the life cycle of salmon. We further recognize we can do nothing to affect ocean conditions. Predators and harvest are recognized as stressors in Volume I.

Overview

ERP I 1.0-0

The ERPP does not rely on keystone species; rather it focuses on the restoration of ecological processes and functions.

ERP I 1.0-1

The ERP is one of eight major program elements intended to restore a balance among competing users of water.

ERP I 1.0-2

Organization of the Plan

ERP I 1.1-1

The ERPP is focused on the environmental problems of the Bay-Delta ecosystem. The plan is based on, and expands on, the many agency programs that address various facets of the overall problem. In Volume II of the plan, we document ongoing programs and acknowledge their progress. In Volume III, we outline an institutional structure that could be used to consolidate the many agency programs. We will continue to utilize existing publically owned land where possible. Third-party, along with direct, impacts will be evaluated in site-specific environmental documents.

Geographic Scope

ERP I 1.4-1

Many of the CALFED agencies are actively involved in attempts to resolve problems in the Trinity River. Coordination is occurring at the agency level.

ERP I 1.4-2

CALFED has no ecosystem restoration projects proposed for Mendocino County.

ERP I 1.4-3

The objective of the ERP is to deal with ecological problems manifest in the Delta. We have found no biological or physical link that would lead us to believe that resolution of problems in South or Central Bay would result in improvements in the Delta.

ERP I 1.4-4

The ERPP looks at 14 ecological zones that cover the Central Valley watersheds tributary to the Delta, in addition to the Delta.

Implementation Strategy

ERP I 1.5 -1

The goals and objectives included in the Strategic Plan go well beyond consideration of just fish. The San Francisco Bay will be considered in the context of its contribution to the ecological health of the Delta.

Key Ecological Attributes of the San Francisco Bay-Delta Watershed

ERP I 2.0-1

Please see common response 3.

Rationale

ERP I 2.1-1

We concur. Please note our discussion on Ecosystem Management in the Strategic Plan.

Vision for Ecosystem Elements

ERP I 3.0-1

Please see common response 3.

Habitats

ERP I 3.2-1

CALFED has committed to the restoration of natural habitats and restoration of ecological processes to attain a more durable environment.

ERP I 3.2-2

We added the phrase “and other areas of the Central Valley and its rivers.”

Priority Group I

ERP I 3.4-1

The ERP has included the recovery plans developed under the ESAs and is integrated with the CVPIA.

Populations of Selected Species for Sustainable Commercial and Recreational Harvest

ERP I 3.8-1

The decision to include striped bass as a species to maintain at a level suitable for sustained recreational harvest was made at the CALFED policy level. It is consistent with the goals of the CVPIA. Management and recovery of striped bass will be constrained by the needs of threatened or endangered species, which have the highest priority.

Introduction

ERP I 4.1-1

The comment suggests that ERP efforts to restore channel-forming flows are in conflict with flood control. The scouring effect, the establishment of meander zones, and the reintroduction of floodplains should improve flood management. The increased channel capacity derived from set-back levees should benefit flood management.

Central Valley Streamflows

ERP I 4.2-1

Please see common response 3.

ERP I 4.2-2

The ecosystem water program is intended to be a participant and beneficiary in new water developed by the CALFED Program.

ERP I 4.2-3

The commentor believes that "CALFED should implement a policy that in-stream uses of water are to receive priority in all water use determinations." This policy suggestion is outside CALFED's authority. Neither CALFED nor the implementation of the ERPP will be conducted as a regulatory program.

ERP I 4.2-4

The basic premise as to how in-stream flow improvements will benefit the ecosystem is presented in Volume 1, Section 4 in the ERPP. The proposed flows are identified by stream in Volume II. The process we intend to follow to reduce scientific uncertainty is described in Chapter 3 in the Strategic Plan.

ERP I 4.2-5

The ERP is focusing on flows and flow events that form and sustain habitats. These are not the very high flows that cause flood events or that occur at long intervals in time. Rather, we are seeking the benefits of flows that occur on regular intervals of 3-5 years. Together with the occasional flood, the reestablishment of these more common flow events should support ecological processes and functions.

ERP I 4.2-6

Please see common response 3.

ERP I 4.2-8

Please see common response 3.

ERP I 4.2-9

Please see common response 3.

ERP I 4.2-10

The sum of the targets for streamflow improvements on each of the streams tributary to the Delta is approximately 400,000 acre-feet annually. This water will be derived from a number of sources. In some cases, it will be purchased from willing sellers with storage in excess of their current annual or longer term needs. Permanent water rights will be purchased from willing sellers, or water rights will be leased for various periods of time. Groundwater exchange programs will be developed where seasonal needs exist and a safe yield can be developed with willing landowners or districts. Limited opportunities exist for conservation, which could augment in-stream flows, but these opportunities will be pursued. The ERP will share in the use of new supplies developed through off-stream and groundwater storage.

ERP I 4.2-11

The ERPP is a program plan. It is not intended to serve as the discussion on potential impacts. Please see response ERP 0.1 for a discussion of ERPP water use.

ERP I 4.2-13

The ERP will obtain water through a variety of programs, including conservation.

ERP I 4.2-15

We do assume that to the extent we can mimic natural flow patterns and volume, we will be able to rehabilitate the ecosystem. This is an area of focused research in Phase III of the Program.

ERP I 4.2-16

Section 1707 of the California Water Code provides for protection of an “environmental water right.”

ERP I 4.2-17

State law determines the beneficial uses of water and the priorities for appropriation.

ERP I 4.2-18

This issue is presently before the SWRCB.

ERP I 4.2-19

This issue is a major focus of the ERP science program. It will be a topic of scientific research and adaptive management in Phase III of the CALFED Program.

ERP I 4.2-20

All additional water needed to meet the ERPP target flows will be developed or acquired. The water will not be obtained through regulatory processes, and it will be used to augment current regulatory flows. The ERP and EWA will be managed as a single program.

ERP I 4.2-21

Water developed or acquired for ecosystem restoration will be protected under Section 1707 of the Water Code. Unfortunately, state law does not provide for the appropriation of water for in-stream uses. CALFED will develop a specific program to implement its environmental water acquisition program and to coordinate with the CVPIA program.

ERP I 4.2-22

We have obtained the services of McBain and Trush to help us develop individual tributary stream restoration plans.

ERP I 4.2-23

We agree with the need for sound science. We have established a science board to help us in that area. Water will be purchased on the open market at fair market value. We do not see the ecosystem program as having an unfair advantage. Any future decisions on conveyance facilities will be made by the Governor and the Secretary of the Interior with the advice of the CALFED Policy Group. South San Francisco Bay has no physical or biological link to the ecosystem problems of the Delta.

ERP I 4.2-24

Additional flow needs targeted in the ERPP are estimated to be 400,000 acre-feet. All water for the ERP will be derived from new supplies, obtained by conservation, or purchased from willing sellers.

ERP I 4.2-25

The ERP has identified the need for approximately 400,000 acre-feet of water to augment Central Valley streamflows. That water will be derived from a number of possible sources. These include short-term and long-

term transfers, acquisitions of water rights, groundwater banking, and new surface storage. At the programmatic level of analysis, we cannot adequately compare costs. Because the water needs are tied to individual streams, we can only compare alternatives that meet the specified needs for a particular stream and, in some cases, seasonal needs on a particular stream. As we move into Phase III of the Program, we will assess needs and alternatives on a case-by-case basis.

ERP I 4.2-26

If a new entity is established by law to manage the ERP, it will hold the water rights acquired. If a new entity is not established, a CALFED agency, most likely the California Department of Fish and Game (DFG), will hold the rights.

ERP I 4.2-27

We removed the unsupported legal conclusion.

ERP I 4.2-28

The ERP has identified the need for about 400,000 acre-feet of streamflow augmentation. That water will be acquired from willing sellers or new supplies. The ERP has been funded through Proposition 204 and federal appropriations. Money to buy water has been budgeted.

ERP I 4.2-29

The authority to require storage releases for Delta outflow is vested with the SWRCB. The ERP environmental water acquisition program is working with willing sellers and developing new supplies to augment streamflows required under the various regulatory programs.

ERP I 4.2-30

We have described our flow targets at the programmatic level. When we conduct project-specific analysis, we will provide the requested detail.

Central Valley Stream Temperatures

ERP I 4.3-1

CALFED does not propose to dilute Colusa Basin flows to decrease temperatures. Nor do we propose diversion of the drain water to settling ponds. This warm water could be seasonally reused on locally grown agricultural crops. During the higher run-off periods, temperature is not a concern.

ERP I 4.3-2

We agree. We intend to do what we can to improve temperatures. We recognize that this may be the most difficult aspect of steelhead trout recovery.

ERP I 4.3-3

Our temperature targets are stated for streams where the appropriate investigation has been completed. In many cases, it will be impossible to attain appropriate temperatures below foothill dams. In these cases, we will investigate ways to move anadromous fish above the dams to cooler headwater reaches.

ERP I 4.3-4

A change has been made to Section 4.3 in Volume 1 of the ERPP.

ERP I 4.3-5

If additional water is needed below Don Pedro Reservoir, it will be obtained from new supplies or willing sellers.

Coarse Sediment Supply

ERP I 4.4-1

It is our intent to use the meander belt and floodplain elements of the ERPP to reduce flood damage. We will be working only with landowners who are willing sellers.

ERP I 4.4-2

We do not advocate the same approach to all coarse sediment problems. The solutions we craft will be site specific.

Stream Meander

ERP I 4.5-1

We understand the concern that meander of Butte Creek could affect existing infrastructure. We consider this infrastructure to be a constraint on ecosystem restoration. This is especially true of the Gary N. Brown Siphon which we helped to fund. Through CEQA and/or NEPA, we will conduct the necessary analysis to avoid or mitigate the impacts you are concerned about.

ERP I 4.5-2

We have convened a team of experts to evaluate and identify the flows needed to support the meander process. The Phase III evaluation will be used to condition diversions to off-stream storage.

ERP I 4.5-3

We agree with your concern. Any project that CALFED entertains will be thoroughly analyzed by qualified experts, disclosed in the appropriate environmental documents and will be subject to permit conditions of the appropriate regulatory agencies. The designation of liability would likely be included in the permits.

Natural Floodplains and Flood Processes

ERP I 4.6-1

The Levee System Integrity Program is restricted to the Delta and Suisun Marsh. Ecosystem restoration efforts will be closely coordinated in those areas within the CALFED Program. Levee rehabilitation along the Sacramento and Feather Rivers falls under the scope of the U.S. Army Corps of Engineers' (Corps') Comprehensive Study. The ERP will closely coordinate with the Corps on programs outside the Delta and Suisun Marsh. Levee risk or impact assessments will be included in site-specific environmental documents prepared for ecosystem restoration projects.

ERP I 4.6-2

CALFED recognizes that virtually all the proposed ERP actions along regulated rivers and designated floodways will require permits from several agencies, including the State Reclamation Board. We will apply for the necessary permits and will comply with imposed requirements. An analysis of increased roughness, cross section changes, and potential debris loads will necessarily be part of the required permit application and analysis.

ERP I 4.6-3

Increasing channel capacity through setting back levees and increasing the numbers and size of flood bypasses are proven means to manage floods. In any instance where CALFED might find an opportunity to restore a more natural flood process, the preservation and enhancement of public safety and property protection will be the paramount issue of concern. Maintenance responsibility will be established before any new levees are constructed.

ERP I 4.6-4

Prior to undertaking any action that might increase flood concerns, CALFED will consult with the U.S. Army Corps of Engineers (Corps) and the State Reclamation Board. We will either avoid or mitigate the identified impacts.

ERP I 4.6-5

Any new levees will be constructed to the standards of the Corps. All setback levee proposals will be carefully analyzed.

Bay-Delta Hydraulics

ERP I 4.7-1

The CALFED Water Management Strategy and, in particular, the EWA focus on Delta water project flexibility and management. We agree that there are times when taking less water will benefit the fishing and times when fishing protection is less sensitive.

Bay-Delta Aquatic Foodweb

ERP I 4.8-1

Two comments are made, one relating to the foodweb and one regarding invasive species. The ERP proposes to reinvigorate the foodweb process in the Delta by reducing exported nutrients through the EWA program and operational adjustments, and by a program of habitat rehabilitation.

CALFED is preparing a specific non-indigenous species program intended to provide guidance and specific projects for the control and management of invasive species.

Fresh Emergent Wetland

ERP I 5.7-1

The potential to increase organic carbon in drinking water supplies is a major point of concern in CALFED's environmental restoration and drinking water quality programs. It is not our intent to degrade water quality. We will avoid or mitigate impacts to drinking water.

Seasonal Wetlands

ERP I 5.8-1

We will consult with CALTRANS to avoid potential highway maintenance problems.

Agricultural Lands

ERP I 5.14-1

CALFED does acknowledge and support the role that small grain agriculture plays in support of waterfowl and other wildlife. Our wildlife-friendly agriculture program is intended to expand on successful public/private partnerships.

CALFED will work with the counties, and will document and mitigate potential impacts.

CALFED has as its first priority the use of existing public land for habitat restoration.

Chinook Salmon

ERP I 7.5-1

While we recognize that we cannot change some factors controlling salmon populations, we expect to achieve recovery through our proposed actions.

Steelhead Trout

ERP I 7.6-1

The ERP acknowledges and accepts the difficulties of steelhead trout restoration. We are exploring every option available to provide access to headwater reaches of Sacramento and San Joaquin Valley streams.

ERP I 7.6-2

Steelhead trout are a specific target species for the ERP and the MSCS. We fully accept the need to recover wild steelhead trout and we recognize the difficulty of doing so. Please refer to Volume 2 of the ERP for specific actions and targets for steelhead trout.

At-Risk Native Species (Priority Group II)

ERP I 8.0-1

Recovery plans have not been developed for all listed species. The fish and wildlife agencies are working to complete the plans.

Suisun Song Sparrow

ERP I 8.5-1

The San Pablo Bay song sparrow has been added.

Salt Marsh Harvest Mouse

ERP I 8.7-1

We concur.

Native Resident Fish Species

ERP I 10.1-1

We have made the addition.

Waterfowl

ERP I 10.4-1

We have made the addition.

Striped Bass

ERP I 11.1-1

The ERPP sets the same population goal established by policy of DFG. Our public health objective is to remove the body burden of toxicants and obviate the need for public health warnings.

ERP I 11.1-2

The ERPP identifies striped bass as an important harvested, introduced species. Maintenance of striped bass will not be given priority over native species. Striped bass will be managed under the existing biological opinion issued by NMFS for winter-run chinook salmon.

ERP I 11.1-3

The ERP focuses on restoration of species through habitat and ecological processes. We do not advocate hatcheries. Striped bass are targeted as an important harvested species.

Visions for Reducing or Eliminating Stressors

ERP I 12.0-1

Invasive species and harvest are identified as stressors in Volume 1 of the ERPP.

ERP I 12.0-2

Please refer to Volume 1 of the ERPP where we discuss introduced species and harvest as stressors on the population.

Water Diversions

ERP I 12.2-1

Diversions are a major stressor addressed by the ERPP. Screening and operational changes will be used to reduce the impacts of the two major diversions in the Delta.

ERP I 12.2-2

The screening of problem diversions and the provision of fish passage to upstream habitats are very important priorities in the ERPP. Please also see response ERP III 4.2-1.

ERP I 12.2-3

Water diversions in the Bay-Delta watershed directly and indirectly affect fish, aquatic organisms, salinity, sediments, streamflow, habitat, foodweb productivity, and species abundance and distribution.

ERP I 12.2-4

CALFED has experienced substantial success working with diverters to cooperatively remove and replace damaging diversions. The diverters consider this cooperative program to be a benefit they derive from the ERP, not a threat.

ERP I 12.2-5

All fish screens will be custom designed and monitored for effectiveness.

ERP I 12.2-6

We will.

ERP I 12.2-7

The major state and federal diversions are identified as substantial stressors on Delta-dependent fishes. CALFED proposes to screen those diversions and to modify their operation in order to reduce impacts.

Dams and Other Structures

ERP I 12.3-1

Please see common response 3.

ERP I 12.3-2

Please see common response 3.

ERP I 12.3-3

We agree. We have established a program to evaluate the feasibility of removing dams or the provision of alternative access to upstream areas.

ERP I 12.3-4

Please see common response 3.

Gravel Mining

ERP I 12.6-1

The ERPP does identify gravel mining in levee stream channels as an ecosystem stressor. Although regulated, this extraction does remove coarse sediment from the ecosystem. This coarse sediment is an essential building block of habitats.

Invasive Aquatic Plants

ERP I 12.7-1

The ERPP identifies invasive species as a stressor and is developing a focused program to manage these problems.

Invasive Aquatic Organisms

ERP I 12.8-1

Please see response ERP I 4.8-1.

ERP I 12.8-2

Excessive predation is a factor evaluated under the invasive species stressor in Volume 1 of the ERPP. Temperatures are also identified as a stressor.

Predation and Competition

ERP I 12.12-1

Seals and sea lions do appear to be increasing in numbers, and they may be an important predator of salmon. Society has placed protections on these animals, and their numbers cannot be controlled artificially.

Contaminants

ERP I 12.13-1

We agree with both points raised. We intend to fund studies in order to define cause and effect. We will not use a regulatory approach to solve identified problems.

Fish and Wildlife Harvest

ERP I 12.14-1

The efforts of harvest as a stress on salmon populations is discussed in Chapter 12, Section 14 in Volume 1 of the ERPP.

ERP I 12.14-2

We acknowledge the role that adverse ocean conditions play in the life history of salmon. Commercial salmon fisheries are highly regulated, and those regulations are adjusted annually. CALFED agencies will provide their input into that regulation-setting process with a goal of assisting in achieving CALFED's objectives.

Artificial Fish Propagation

ERP I 12.15-1

The ERPP does not rely on hatchery production to meet its goals.

ERP I 12.15-2

CALFED will conduct a comprehensive review of hatchery practices.

Volume II: Ecological Management Zone Visions

General Responses

ERP II 0-1

Where CALFED has proposed specific habitat restoration targets, those targets are identified as necessary to achieve ecological health. If those targets are partially or completely implemented by programs other than CALFED, they will satisfy the CALFED objective. Where a local habitat conservation plan achieves restoration beyond that required for mitigation and actually improves the ecological health baseline above current levels, it will be counted as progress toward the CALFED targets and objectives.

ERP II 0-2

Volume 2 of the ERPP discusses the examples you cite where the aggregate industry is helping to restore environmental values.

ERP II 0-3

In Volume 2 of the ERPP, we identify streamflow targets for all of the rivers and streams tributary to the Delta. Our estimate is that approximately 400,000 acre-feet of water will be required to achieve these targets. We further state that the water will be obtained from willing sellers or from conservation or new developed sources.

ERP II 0-4

The ERPP targets and actions are programmatic. The degree of scientific uncertainty is identified. The actions and targets are subject to revision.

ERP II 0-5

The targets and actions are programmatic and subject to change.

ERP II 0-6

CALFED appreciates National Heritage Institute's (NHI's) input regarding the need to expand the ERP targets. NHI's October 1998 report, *An Environmentally Optimal Alternative for the Bay-Delta*, provided CALFED and others with important input to the process and will be considered carefully during site-specific planning. The targets currently in the ERPP can be biologically justified. However, CALFED also recognizes that once implementation begins, adaptive management may guide us to modify those targets. If the targets are expanded, the impacts of that expansion will require supplemental environmental documentation. CALFED also appreciates NHI's recommendation to develop a program of incentives that makes it attractive to landowners to initiate restoration programs. We expect that this tool will be used effectively to implement the ERPP.

ERP II 0-7

The targets and actions are programmatic and subject to revision.

ERP II 0-8

The programmatic targets are often identified as ranges and are all subject to revision in the more detailed analysis to be conducted in Phase III of the Program.

ERP II 0-9

The ERPP does encompass the CVPIA and other restoration programs. The Land Retirement Program in the CVPIA is in response to drainage problems, not ecosystem deficiencies manifest in the Delta. Where there are different objectives between the ERPP and other restoration programs, there are often different targets.

ERP II 0-10

We have prepared a specific analysis of the habitat targets for the ERPP and the MSCS. Please see response ERP 0.2-1.

ERP II 0-11

The ERP and Watershed Program involve all watersheds tributary to the Delta.

ERP II 0-12

The mitigation suggested would represent a substantial shift in the state's tax-sharing policy and would require legislation. CALFED is participating in high-level policy discussions in an effort to resolve this concern.

ERP II 0-13

It may not be possible for us to provide for adequate flow and temperature needed to sustain natural spawning steelhead trout in the foothill regions of Central Valley streams below the major dams. An essential element in the recovery of steelhead trout is access to headwater reaches of the streams. We intend to evaluate all feasible means to provide access to these headwater reaches.

ERP II 0-14

Please refer to the Stage 1 actions proposed in the Strategic Plan. The adaptive management process calls for continuous monitoring, evaluation of conceptual models, and analysis of alternatives.

ERP II 0-15

The Watershed Program has always been focused on planning and local facilitation. The ERP is focused on restoration of habitats.

The ERP has not been adopted as a recovery plan by the fish and wildlife agencies. The intent or goal of the ERP is to achieve restoration of sustained, high levels of populations of species currently in danger. Our goals are beyond the level needed for de-listing under the ESA.

The Phase II Report is a summary document and does not lend itself to the detailed specifics in the ERPP. The commitments to goals, objectives, and targets relative to ecosystem restoration are contained in the ERPP.

Ecosystem Restoration Program Plan

The introduction to Volume II describes the scientific process we intend to follow. Later in Volume II, you will note our proposals for over 600 actions.

Thank you for your comment.

Geographic Scope

We have no scientific data that would suggest that expansion of our solution area to include all of San Francisco Bay will help to reduce conflicts manifest in the Delta. We will continue to find projects that result in improved quality and quantity of ecological impacts to San Francisco Bay.

Terms Used in the ERPP

Where scientific uncertainty exists, our targets are followed by either one or two diamonds. We are committed to pursue additional research and evaluation of demonstration projects for those targets with the greatest level of uncertainty and to pursue staged implementation for targets with moderate levels of uncertainty.

Sacramento-San Joaquin Delta Ecological Management Zone

Proposals to restore striped bass populations are presented in Volume 2 of the ERPP in the section titled "Sacramento-San Joaquin Delta Ecological Management Zone."

The NHI offers no suggestion as to how to improve the targets they criticize.

ERP II 4.0-3

The major habitat changes associated with levee construction in the Delta occurred prior to 1906. We used that date because it offered the earliest documented data point.

ERP II 4.0-4

While our use of a reference period may seem arbitrary and unscientific, using costs and opportunity as the sole basis for setting habitat targets seems unsupportable.

Description of the Management Zone

ERP II 4.2-1

The comment suggests that the only way Delta outflow can be increased is by reducing use upstream. While this is somewhat correct, it does not take into account the time value of water. Conserved floodflows can be redirected to critical time periods without a net reduction in consumptive use upstream of the Delta.

ERP II 4.2-2

Third-party impacts are a universal issue of concern with water transfers. All transfers proposed will be analyzed for third-party impacts, and appropriate mitigation will be implemented.

ERP II 4.2-3

We agree. Our intent is to provide access to historical spawning areas wherever possible. Please also see response ERP III 4.2-1.

ERP II 4.2-4

CALFED is working with the Regional Water Quality Control Board to set the appropriate standards and to obtain the necessary permits to reuse dredged material.

Vision for the Ecological Management Zone

ERP II 4.4-1

The ERPP is a comprehensive program that addresses both the stress from water project operations and the loss of habitat from agricultural conversion, dredging, and erosion.

Visions for Ecological Management Units

ERP II 4.5-1

We concur. Before we implement any habitat restoration that could cause a negative impact on the floodflow capacity of the Yolo Bypass, we will conduct the necessary analysis, develop appropriate mitigation, and obtain the necessary permits.

ERP II 4.5-2

We concur.

ERP II 4.5-3

A small gated connection to bring fresher water into this portion of the Delta is substantially different than a Hood diversion to an isolated facility. Any further development of this concept would involve a thorough analysis and the appropriate environmental documentation.

ERP II 4.5-4

We concur.

ERP II 4.5-5

We concur.

ERP II 4.5-6

CALFED is working with the Delta Protection Commission. CALFED has no land use authority.

ERP II 4.5-7

We agree. We have corrected our oversight.

ERP II 4.5-8

We concur. We have a draft of this type of agreement in the MSCS.

ERP II 4.5-9

We made the addition. We have no control over the conversion of one crop to another.

Visions for Ecological Processes

ERP II 4.6-1

The discussion of streamflows and processes is not prioritized. Streamflow restoration is included in the ERPP's highest priority for the restoration of ecological processes.

ERP II 4.6-2

No priority is intended in a listing of targets or programmatic actions.

ERP II 4.6-3

We have improved our definitions and descriptions of habitat types.

ERP II 4.6-4

Frank's Tract is relatively shallow and is located in an area where nearly all land surfaces are deeply subsided. It also offers opportunities to generate water quality benefits by reducing tidal incursion.

ERP II 4.6-5

We concur. We have initiated the studies.

ERP II 4.6-6

Our objective is to rely less on habitat on the waterside of levees and more on berms attached to the waterside of the levees. This will reduce the conflict with maintenance and could contribute to levee stability.

ERP II 4.6-7

Thank you.

ERP II 4.6-8

No priority should be inferred from the listing of targets and actions. Water hyacinth control is underway.

ERP II 4.6-9

We concur. Our non-native invasive species strategic plan includes this element.

ERP II 4.6-10

We concur. They have been removed.

ERP II 4.6-11

We will consider funding increased boat speed limit enforcement.

Visions for Habitats

ERP II 4.7-1

The comment expresses a preference for voluntary habitat restoration on agricultural lands. Our target to "cooperatively manage 40,000-75,000 acres of agricultural lands" in the Delta is entirely voluntary and is incentive based. We will pay landowners for foregone value or inconvenience.

ERP II 4.7-2

The restoration of water-covered areas in the Delta, such as Franks's Tract, Big Break, and additional smaller areas, is an important element of habitat restoration in the Delta. These types of projects are very difficult, very costly, and require considerable analysis. They are also difficult to permit. We have initiated the early stages of planning for restoration of flooded areas in the Delta.

ERP II 4.7-3

The target for cooperatively managed agricultural land in the Delta is 40,000-75,000 acres. In all cases, this will be done under a management plan developed with the landowner, and the landowner will be compensated. Private lands currently managed for wildlife or fisheries benefits will also be eligible for the Program.

The ERP will address stressors directly and not through regulatory programs. CALFED has no regulatory authority. We expect that the implementation of the ERP will make it possible or easier to obtain permits under existing regulation in the future.

ERP II 4.7-4

All of our habitat restoration is based on the voluntary and compensated participation of landowners.

ERP II 4.7-5

We are using this map, which identifies public land and private land that can be converted to habitat, in order to guide our Stage 1 actions.

ERP II 4.7-6

We agree. Widening channels is one option to developing shallow-water habitat discussed in the ERPP.

ERP II 4.7-7

We do not intend to fill Frank's Tract. Rather, our objective is to develop a mosaic of habitats that serve the needs of several Delta-dependent fishes.

ERP II 4.7-8

CALFED targets include both tidal and seasonal wetlands. No conversion of existing seasonal wetlands will occur without appropriate mitigation.

ERP II 4.7-9

The role of shallow-water habitat is a critical scientific uncertainty. It will be the focus of peer-reviewed research by CALFED.

Visions for Reducing or Eliminating Stressors

ERP II 4.8-1

We acknowledge the physical and potential legal difficulties of consolidating diversions in the Delta. We would undertake such an effort only if the biological benefits warrant doing so.

ERP II 4.8-2

We have funded new studies to address the uncertain needs or benefits of screening smaller diversions in the Delta.

ERP II 4.8-3

The level of salinity management in the 1960s was selected as appropriate in the recovery plan for Delta native fishes by the U.S. Fish and Wildlife Service (USFWS).

ERP II 4.8-4

Both issues are of concern.

Visions for Species

ERP II 4.9-1

We include striped bass as a valuable species. We target flows for striped bass spawning and downstream migration. The EWA will take striped bass into consideration as a target species.

Restoration Targets and Programmatic Actions

ERP II 4.12-1

CALFED has adopted a policy that is intended to reduce the need to convert economically productive Delta agricultural land to habitat. CALFED will focus first on public land, next on easements, and last on private lands acquired from willing sellers. Restoration of submerged land and the recreation of channel islands and attached berms will also be considered. Through this combination approach, we expect to achieve most, if not all, of our objectives. Appropriate avoidance or mitigation will be implemented.

ERP II 4.12-2

Targets for increased Delta outflow are included in Volume 2 (page 83 in the June 1999 ERPP). Our recommendations for habitat restoration in the Suisun Marsh also are included in Volume 2 (page 135 in the June 1999 ERPP).

ERP II 4.12-3

CALFED is following the recommendations in the "Ad Hoc" memo. Our priority continues to focus on the habitat enhancement of publically owned lands. Where we have funded the purchase of private lands, it has been

at the request of the landowner and with a clear demonstration of economic hardship. Both McCormack-Williamson Tract and Liberty Island have a history of frequent flooding and levee failure.

ERP II 4.12-4

The feasibility of restoring shallow, tidally influenced habitat in the central and western Delta is substantially limited by the high degree of subsidence. This fact and lack of certainty as to how to reverse subsidence are constraints that affect our habitat targets. If evaluations currently in progress successfully demonstrate a means to raise the elevation of heavily subsided islands in the central and western Delta such as Sherman Island, it could become a location for restoration of various tidal aquatic habitats.

ERP II 4.12-5

The ERPP's focus on fish screens in the Delta is associated with the larger diversions. We are conducting an analysis to evaluate the need and feasibility of screening the smaller agricultural diversions and a process for prioritizing those diversions for screen installation.

ERP II 4.12-6

We concur. We have funded extensive research into the mercury concern. We will have all material proposed for habitat or levee construction tested.

ERP II 4.12-7

We have committed to minimal conversion; each project will be designed to avoid neighboring impacts, or mitigation will be provided.

ERP II 4.12-8

The additional acreage is associated with "wildlife-friendly" agricultural lands. Targets are subject to reevaluation based on adaptive management and site-specific environmental documentation.

Suisun Marsh/North San Francisco Bay Ecological Management Zone

ERP II 5.0-1

Many existing programs focus on the ecological restoration of San Francisco Bay. The Comprehensive Conservation and Management Plan (CCMP) is the most comprehensive. CALFED has focused its planning effort on the area upstream of the central Bay and specifically on improving the quality and quantity of ecological inputs to the Bay. Our focus is appropriate and will complement efforts under the CCMP.

ERP II 5.0-2

We recognize the role of Bay wetlands in the ecosystem and have targeted their restoration; we will continue to fund acquisition and restoration.

Description of the Management Zone

ERP II 5.2-1

We have made the correction.

ERP II 5.2

Descriptions of Ecological Management Units

ERP II 5.3-1

We agree that a broad range of salinities is involved and that seasonal differences exist. Our use of a broad range of salinities does not connote low priority.

Visions for Ecological Management Units

ERP II 5.5-1

Our vision includes the statement "...consideration for maintaining the natural hydrologic regime and salinity levels of the slough and marsh." This will incorporate seasonal variation.

ERP II 5.5-2

Target 1A, under water diversions, includes power plants and refineries.

ERP II 5.5-3

Our focus is on the tidal reaches. The Watershed Program will deal with restoration at higher elevations.

Visions for Habitats

ERP II 5.7-1

The ERP flows and the EWA flows and management will result in increased Delta outflow. Fisheries habitat will be increased through the development of tidal wetlands in the Suisun Marsh. Operation of the tidal gates in the Suisun Bay can be modified to protect fisheries habitat.

Visions for Reducing or Eliminating Stressors

ERP II 5.8-1

We concur. Please refer to the targets and actions for specific proposals.

Visions for Species

ERP II 5.9-1

We have made the additions.

Integration with Other Restoration Programs

ERP II 5.10-1

These related programs are in Section 5.10 in Volume II (page 132 in the June 1999 ERPP).

Restoration Targets and Programmatic Actions

ERP II 5.12-1

The ERPP does identify the ecological need to return tidal action to some former tidal wetlands in the Suisun Bay area. As these targets are implemented, they will involve only willing sellers and will be coordinated with levee rehabilitation and management of the Suisun Marsh.

ERP II 5.12-2

If our targets are found to be inadequate, we will revise them through the adaptive management process.

ERP II 5.12-3

The North American Waterfowl Habitat Plan and the San Francisco Bay Area Wetlands Goals Projects are the appropriate documents to find seasonal wetlands goals for San Pablo Bay.

ERP II 5.12-4

We propose actions to more closely evaluate natural seasonal inflow. The restoration of tidal wetlands and other habitats around Suisun and San Pablo Bays, and the restoration of natural processes and habitats upstream of the Bay will contribute substantially to the restoration of foodweb processes.

ERP II 5.12-5

We apologize. We have clarified this section.

ERP II 5.12-6

We recognize the many activities that are ongoing. Our targets are correct for our purposes. They could be modified through adaptive management.

Sacramento River Ecological Management Zone

ERP II 6.0-1

The CALFED proposal to allow the Sacramento River to meander was taken from the citizen and landowner process that developed the Sacramento River Conservation Area Handbook. We are specifically following the recommendation developed in that collaborative process.

We will try to address concerns over loss of local taxes through the use of easements and the payment of in-lieu taxes.

We will evaluate the potential for increased flood risk to pockets of agricultural land and will undertake appropriate mitigation.

All proposed projects will include site-specific evaluations. Existing “hard points” such as the bridges you mention will remain protected. We agree that future redesign and reconstruction of bridges and other facilities should include bypasses and other flood relief measures. If appropriate, we will participate in the funding of alternatives.

Description of the Management Zone

ERP II 6.2-1

We have made the addition.

ERP II 6.2-2

The gravel mining operations of these creeks are regulated. They do not contribute to significant spawning areas.

Vision for the Ecological Management Zone

ERP II 6.4-1

We have integrated the SB 1086 program into our vision for meander of the Sacramento River. This integration includes the “hard points” policy objective.

Visions for Ecological Management Units

ERP II 6.5-1

We have commissioned a team of experts to develop the appropriate level of science.

Visions for Ecological Processes

ERP II 6.6-1

We concur. We have started those studies and will followup any actions to refine our conceptual models.

Visions for Reducing or Eliminating Stressors

ERP II 6.8-1

Please see response ERP II 6.8-2 below.

ERP II 6.8-2

The statement on page 164 in Volume II of the June 1999 ERPP reads as follows: "Significant progress has been made in screening the larger diversions, but screens are needed on the remaining unscreened largest, many medium-sized, and small diversions." We will look into the projects you suggest.

Visions for Species

ERP II 6.9-1

The addition was made.

Integration with Other Restoration Programs

ERP II 6.10-1

The efforts of the ERP are focused on ecosystem restoration. Other CALFED programs deal with flood management and water supply. These and parallel programs of the Corps will be used to obtain a balance of benefits.

Restoration Targets and Programmatic Actions

ERP II 6.12-1

This is an area of scientific uncertainty that we will study. Spring and summer flows are considered most important for riparian recruitment.

North Sacramento Valley Ecological Management Zone

ERP II 7.0-1

We are not clear as to which streams are associated with this comment. Our intent is to evaluate completely the potential of each tributary. Historically, not all streams provided for all freshwater life cycle needs of salmon. Many of the ephemeral streams supported only short-term rearing. Some of the smallest tributaries to the Sacramento River may not have contributed at all to the salmon life cycle.

Description of the Management Zone

ERP II 7.2-1

We have commissioned a group of scientific experts to begin dealing with this area of uncertainty. This work will be peer reviewed, discussed in a public process, and added to as necessary.

ERP II 7.2-2

Phasing, monitoring, and the adaptive management process are discussed in the Strategic Plan.

Descriptions of Ecological Management Units

ERP II 7.3-1

Thank you for the updated information.

Visions for Ecological Management Units

ERP II 7.5-1

Coleman Hatchery will be part of our overall hatchery practice review.

ERP II 7.5-2

Winter run do not currently use Battle Creek. We are evaluating several important genetic and scientific issues before we recommend their introduction.

ERP II 7.5-3

We concur.

ERP II 7.5-4

Our restoration efforts look at all of Battle Creek.

ERP II 7.5-5

This will be a focus of any water we purchase and will be factored into riparian zone protections.

Visions for Reducing or Eliminating Stressors

ERP II 7.8-1

If a poaching or harassment problem develops, we will request increased enforcement by DFG.

ERP II 7.8-2

We agree that habitat fragmentation is a stressor. Conservation easements or acquisition in fee are the tools available to CALFED to reduce this stressor.

Visions for Species

ERP II 7.9-1

Scientific questions regarding genetics and disease must be answered prior to introducing (or reintroducing) winter run to Battle Creek.

Integration with Other Restoration Programs

ERP II 7.10-1

We have added them to the integration section.

Restoration Targets and Programmatic Actions

ERP II 7.12-1

In Volume 2 of the ERPP in the “North Sacramento Valley Ecological Management Zone” section, we present Programmatic Action 4A, which deals with the potential removal of the McCormick-Saeltzer Dam.

ERP II 7.12-2

We are aware of this fact.

ERP II 7.12-3

We are aware of this.

ERP II 7.12-4

We agree. We will try to acquire water rights to protect and augment flows in Battle Creek.

ERP II 7.12-5

We concur and have added a target.

ERP II 7.12-6

We concur and have made the addition.

Visions for Ecological Processes

ERP II 8.5-1

We agree with the objective. However, the aggregate extraction that occurs on lower Cottonwood Creek is permitted and regulated. We are considering a voluntary and compensated relocation of these operations to areas outside the live stream channel.

We agree. This specification is in the existing permits.

Colusa Basin Ecological Management Zone

We concur. Our objective is to exclude anadromous fish and reduce temperature impacts.

We concur. But we cannot rely on fish screens alone to restore ecological health.

CALFED has considered, on a programmatic basis, the opportunity to augment flows on the westside tributary streams through exchange. Considerable Phase III analysis will need to proceed before an extension is formally proposed.

Description of the Management Zone

While we agree that large stands of valley oak trees are rare and should be protected, their loss does not present an ecological impact manifest in the Delta.

Visions for Habitats

We concur and have made the addition.

Visions for Species

We expect the tri-colored blackbird and the white-faced ibis to benefit from our proposed actions. Chinook salmon are not included in the vision for the Colusa Basin Ecological Zone. Historically, Thomes, Elder, and Stoney Creeks sporadically supported spawning chinook salmon when rainfall and streamflow patterns allowed upstream migration. Under ideal flow conditions, these streams can still support fall-run chinook. The approach presented in the ERPP includes efforts to resolve uncertainties and problems arising from the ecological dysfunction of streamflow, coarse sediments, and floodplains. These processes need to be improved prior to developing or recommending actions to restore fall-run chinook salmon, which at this time is not warranted.

This comment encompasses numerous issues and represents highly specific local knowledge of the Butte Creek watershed. In general, the programmatic actions presented in Volume 2 of the ERPP are not at the site-specific level of detail commensurate with the level of detail provided in this comment. Some of the major issues discussed in the comment include the following ecological elements described in Volume 1 of the ERPP: dams and other structures, water diversion, streamflows, water temperatures, predation and competition, spring-run chinook salmon, riparian and riverine aquatic habitat, artificial propagation of fish, and contaminants. These are addressed in the Volume II section “Butte Basin Ecological Management Zone - Butte Creek Ecological Management Unit.”

The ERPP vision for the Butte Creek Ecological Management Unit is restoring spring-run chinook salmon and steelhead populations by improving fish passage, increasing and improving streamflow, consolidating and screening diversions, and protecting and restoring the riparian corridor.

The ERPP flow targets for Butte Creek are to (1) increase flow; and (2) develop and implement comprehensive watershed management programs to protect water quality, increase summer base flows, and protect and restore other resources such as riparian vegetation.

The ERPP coarse sediment target for Butte Creek is to improve spawning gravel and gravel availability.

The ERPP target for stream meander and floodplains is to preserve and restore the 50- to 100-year floodplain along the lower reaches of streams in the Butte Basin Ecological Management Zone, and to construct setback levees to reactivate channel meander in areas presently confined by levees.

The ERPP target for riparian and riverine aquatic habitat is to develop a cooperative program to restore and maintain riparian habitat along Butte Creek.

The ERPP target for freshwater and essential fish habitat is to maintain and improve existing freshwater and essential fish habitat through the integration of actions described for ecological processes, habitats, and stressor reduction and elimination.

The ERPP target for water diversions is to improve the survival of chinook salmon and steelhead in Butte Creek by helping to install positive-barrier fish screens.

The ERPP target for dams and other structures is to develop a cooperative program to improve the upstream passage of adult spring-run chinook salmon and steelhead in Butte Creek in order to allow access to 100% of the habitat below the Centerville Head Dam.

The ERPP target for the harvest of fish and wildlife is to develop harvest management strategies that allow the wild, naturally produced fish spawning populations to attain a level that fully uses existing and restored habitat.

The ERPP target for the artificial propagation of fish is to minimize the likelihood that hatchery-reared salmon and steelhead will stray into non-natal streams in order to protect naturally produced salmon and steelhead.

Cumulatively, these targets establish the scope of effort to be pursued in the Butte Creek Basin and mirror the concerns expressed in the comment. The implementation program will be driven by adaptive management, and

actions will be refined or redefined prior to implementation based on peer review and best available scientific information. The complexity of ecosystem restoration in Butte Creek and elsewhere also requires the further refinement or development of a local implementation plan.

Introduction

ERP II 10.1-1

Many anadromous and migratory species dependent on the Delta occupy the Butte Basin for part of their life cycle. The Butte Basin is a source of Delta inflow.

Visions for Ecological Processes

ERP II 10.6-1

We acknowledge the role that agriculture plays as a substitute for natural habitat. Our “wildlife-friendly” incentive program intends to increase those benefits.

Visions for Habitats

ERP II 10.7-1

We have made the addition.

ERP II 10.7-2

We have added greater sandhill crane. The tri-colored blackbird is an MSCS-evaluated species that is not included in the ERPP.

Visions for Species

ERP II 10.9-1

We have added greater sandhill crane. The tri-colored blackbird is not addressed in the ERPP.

Linkage to Other Ecological Management Zones

ERP II 10.11-1

Section 10.11 in Volume 2 of the ERPP discusses this linkage. The principal species of concern is the spring-run race of chinook salmon.

Feather River/Sutter Basin Ecological Management Zone

ERP II 11.0-1

Please refer to Volume 2 of the ERPP, “Feather River/Sutter Basin Ecological Management Zone,” for specifics on our plan to restore the Yuba River. The San Joaquin River is discussed under the title “San Joaquin River Ecological Management Zone.”

Visions for Ecological Management Units

ERP II 11.5-1

We have corrected the oversight.

Visions for Ecological Processes

ERP II 11.6-1

It is true that our vision is to restore ecological process to the extent we can. We fully recognize the constraints associated with existing intense urban and agricultural development.

ERP II 11.6-2

We concur. As we implement our actions, we will endeavor to assure variability and to protect against unnatural rapid rates of flow change.

Visions for Reducing or Eliminating Stressors

ERP II 11.8-1

We have initiated a comprehensive effort to look at the range of alternatives available to meet our objectives.

Visions for Species

ERP II 11.9-1

We have added giant garter snake. The white-faced ibis is an MSCS-evaluated species that is not included in the ERPP.

Visions for Reducing or Eliminating Stressors

ERP II 12.8-1

The comment requests prioritizing the studies necessary to evaluate alternative means of improving anadromous fish passage on the Yuba River. CALFED has established an intensive program to identify and conduct the needed studies.

Our objective on the Yuba River is providing a means that would allow salmon and steelhead trout to utilize habitat above Englebright Dam. This action would mitigate some of the impacts caused by the construction of Englebright Dam. Any project developed to accomplish this objective will be analyzed in a project-specific environmental document.

Restoration Targets and Programmatic Actions

The comments suggest that we construct a fish ladder at Folsom Dam. Experts have advised us that it is infeasible to build fish ladders at Nimbus and Folsom Dams. We are evaluating other ways to reintroduce anadromous fish above Folsom Dam.

While CALFED itself is not a regulatory agency, our proposed flow targets for the American River will fulfill the intent of Fish and Game Code 5937, which used the “good condition” criteria for in-stream flows.

We concur, except we would characterize the benefit to juvenile salmon as immigration flows rather than “attraction for downstream migration.”

Yolo Basin Ecological Management Zone

Thank you. We appreciate your positive comment.

Vision for the Ecological Management Zone

CALFED does not look upon its proposals as interference but rather as an opportunity to provide for all the needs and benefits of these streams. We have committed to regional planning and implementation.

Visions for Ecological Management Units

The MSCS outlines the means to provide the appropriate assurances.

We recognize the magnitude and serious nature of mercury contamination. CALFED has funded over \$3 million in mercury studies to date. We will continue to evaluate opportunities to remediate this problem.

We concur.

We concur.

Flows in Putah Creek are very slow when compared to an unimproved condition. The numbers of fish, by species are very low in Lower Putah Creek. The ERP staff agree that the condition of Lower Putah Creek is inadequate to provide for the long-term needs of a vigorous population of native fishes. The ERP is not taking water from existing users. Rather, flow augmentation will be acquired from willing sellers or new supplies. Please refer to the MSCS for a discussion of our “good neighbor” policy proposal.

Visions for Ecological Processes

Please refer to the “Restoration Targets and Programmatic Actions” section.

Visions for Habitats

We concur and have made the addition.

Integration with Other Restoration Programs

The North Delta NWR will accomplish most, if not all, of the ERPP habitat targets for the Yolo Bypass. The North Delta NWR is independent of CALFED. If CALFED were to stop today, USFWS would proceed with the North Delta NWR. While the refuge is independent of CALFED, it is not “in addition” to CALFED; USFWS and the ERP have worked together, and expect to continue working together, to plan and implement habitat protection and restoration in the north Delta. CALFED has funded acquisition of land in the North Delta that is expected to become part of the refuge, once established, where it will be managed to meet CALFED’s goals. This is one of many ecosystem restoration projects funded by CALFED prior to the completion of the Programmatic EIS/EIR. USFWS is going through the required environmental documentation process for establishment of a new national wildlife refuge unit, which will be completed before the ROD.

Restoration Targets and Programmatic Actions

ERP II 13.12-1

Our targets for the restoration of floodplain and flood processes on Cache Creek contain the specific caveat “...consistent with flood control requirements.” One of our important objectives is to establish and maintain a healthy riparian zone along Cache Creek. This will help to prevent erosion.

ERP II 13.12-2

We are aware of the mercury contamination from several abandoned mines around Clear Lake. We are funding research into the impacts and remediation of this pollutant source.

ERP II 13.12-3

Our discussion on Cache Creek covers a full range of problems and potential solutions. We place high priority on the resolution of mercury contamination problems as the first step in restoration of Cache Creek.

ERP II 13.12-4

We appreciate the endorsement.

ERP II 13.12-5

Coarse sediment supply or gravel is addressed in the “Restoration Targets and Programmatic Actions” section.

ERP II 13.12-6

Our use of diamonds (one, two, or three) is not intended to connote priority but rather the degree of certainty that a benefit will accrue. We agree on the need for more studies on the cost effectiveness of small screens. We have initiated that study.

ERP II 13.12-7

Thank you.

Eastside Delta Tributaries Ecological Management Zone

ERP II 14.0-1

Thank you.

ERP II 14.0-2

Thank you.

Descriptions of Ecological Management Units

ERP II 14.3-1

The value of 11,288 fall-run chinook salmon in the Mokelumne River represents the 1983 in-river run size. The total return including hatchery and natural spawners is 15,861.

ERP II 14.3-2

Plots of salmon abundance are being updated to include recent escapements.

ERP II 14.3-3

The term “FERC Settlement Agreement” has been changed to “Joint Settlement Agreement.”

ERP II 14.3-4

The sentence on armoring has been revised as follows:

“Also, the stream channel has become armored in a few places, but the presence of salmon redds in the same locations year after year suggests that armoring is a minor problem.”

ERP II 14.3-5

We have incorporated the additional information.

ERP II 14.3-6

We have incorporated the more recent information.

ERP II 14.3-7

We have improved the discussion.

ERP II 14.3-8

We think there are 3.6 miles.

ERP II 14.3-9

We have made the addition.

Vision for the Ecological Management Zone

ERP II 14.4-1

There is not scientific documentation that natural spawning steelhead exist or existed in the Calaveras River. Salmon do use this river very infrequently.

Visions for Ecological Management Units

ERP II 14.5-1

The sentence regarding steelhead migration has been revised as follows:

“Higher and more natural flows will help steelhead move upstream during the late fall and early winter.”

ERP II 14.5-2

We concur and have made the addition.

ERP II 14.5-3

CALFED has placed considerable emphasis and resources on restoration of the Cosumnes River. However, we believe that the river has not historically supported large numbers of chinook salmon and is not likely to in the future.

ERP II 14.5-4

We will encourage and support the Corps evaluation. Bypasses are considered an ecologically superior alternative to levees.

Visions for Ecological Processes

ERP II 14.6-1

We have augmented the text.

ERP II 14.6-2

The role and sources of organic material are discussed in Volume 1 of the ERPP.

Visions for Habitats

ERP II 14.7-1

We unintentionally deleted the Butte Sink.

Visions for Reducing or Eliminating Stressors

ERP II 14.8-1

We have expanded the discussion.

ERP II 14.8-2

Habitat conversion is a universal concern. CALFED has no authority to regulate land use. Our approach is to rely on the use of easements or fee purchase to try to reduce the impact.

Visions for Species

ERP II 14.9-1

Recent records of steelhead in the Tuolumne River are only one factor we considered. Steelhead habitat was available prior to the construction of dams. Our intent is to further evaluate the potential for restoration.

ERP II 14.9-2

We have made the appropriate additions.

Integration with Other Restoration Programs

ERP II 14.10-1

We have updated this statement.

Restoration Targets and Programmatic Actions

ERP II 14.12-1

Our specific programmatic actions for flow on the Calaveras River all include the cooperative development of new water supplies, the use of water transfers, and the acquisition of water from willing sellers. We do not conclude that this will devastate the economy of San Joaquin County as you allege.

ERP II 14.12-2

If new supplies or willing sellers cannot be found, CALFED will need to reevaluate its objectives for the Calaveras River.

ERP II 14.12-3

The sentence regarding the 1996 POA has been revised as follows:

“A Joint Settlement Agreement was signed in 1998 by EBMUD, DFG, and USFWS that provides improved fish flows for the Mokelumne River, higher minimum flows below Camanche Dam, and gain sharing of additional flows between EBMUD and the environment.”

ERP II 14.12-4

The sentence regarding additional gravel injection sites has been revised as follows:

“Lower gravel enhancement sites were established between Highway 88 at Mackville Road on the lower Mokelumne River in 1997 and 1998.” These sites are approximately 5 miles below Camanche Dam.

ERP II 14.12-5

The ERPP relies on willing sellers and a comprehensive program to develop new supplies for fisheries restoration.

ERP II 14.12-6

This response has been consolidated with response ERP II 16.12-14. Please refer to that response for the answer to your comment.

ERP II 14.12-7

On the Cosumnes River, there appears to be little opportunity to develop new water supplies. This is because of the declining groundwater table. However, groundwater recharge basins could replenish the table and allow for some exchange of groundwater for streamflow. The development of a model will be considered. Target 4 refers to the Mokelumne River.

ERP II 14.12-8

We are targeting seasonal floodplain habitat because, as you point out, it favors native species. We added a second programmatic action under seasonal wetlands. The riparian acreage targets are stated as minimums. These are estimates as to what is needed to contribute to the ecological health of the Bay-Delta.

ERP II 14.12-9

We made the suggested changes on water diversion. We are not considering artificial propagation in any ecological unit. The recent studies on mercury that were cited were funded by the ERPP and will continue.

ERP II 14.12-10

We see no scientific reason to suspect that the Cosumnes River fall-run chinook are a distinct species. The detailed studies for the giant garter snake and western pond turtle seem to be outside the scope of the ERP.

ERP II 14.12-11

We are addressing salmon losses at the export pumps through the EWA. Reoperating the pumps and curtailing exports during critical periods are considered effective resolutions to the problems.

San Joaquin River Ecological Management Zone

ERP II 15.0-1

The commentor is concerned that CALFED is seeking to return San Joaquin River flows to those that existed prior to the construction of Friant Dam. The ERPP makes no recommendation for flow on the mainstem San Joaquin River below Friant Dam.

ERP II 15.0-2

The ERPP does include restoration of various ecosystem elements of the reach of the San Joaquin River below Friant Dam. If the courts restore flow to that reach of the river, we will develop a more comprehensive plan for restoration.

ERP II 15.0-3

In its current condition, the San Joaquin River seldom has hydraulic continuity with the Delta. If the river is rewatered by the court, we will expand our geographic scope.

ERP II 15.0-4

Section 15 in Volume 2 of the ERPP details our recommendations for the San Joaquin River.

Visions for Ecological Management Units

ERP II 15.5-1

This reach of the San Joaquin River was dewatered by an Act of Congress and is the subject of ongoing litigation. If the court orders a significant restoration in flow, CALFED will work to develop a restoration plan.

Visions for Ecological Processes

ERP II 15.6-1

If the courts reverse the existing circumstances on the San Joaquin River relative to flow, CALFED will revise its ERPP to include the mainstem San Joaquin River below Friant Dam.

ERP II 15.6-2

Because the San Joaquin River has been so heavily affected, it is difficult to use the 100-year flood as a benchmark. We will need to conduct additional analyses to determine reasonably reliable floodflows that can activate movement of coarse sediment. We will conduct these analyses in Phase III of the Program.

Visions for Species

ERP II 15.9-1

We have added the lamprey, stickleback, and pond turtle. The blunt-nosed leopard lizard is included in the MSCS because the species could be affected by CALFED projects.

Linkage to Other Ecological Management Zones

ERP II 15.11-1

The change has been made.

ERP II 15.11-2

The CVPIA has purchased water on both streams; it did not purchase options.

Restoration Targets and Programmatic Actions

ERP II 15.12-1

The ERPP has targets and objectives for the San Joaquin River above the mouth of the Merced River. Until such time as there is a program to provide flow from Friant Dam to the Merced River, this portion of the San Joaquin River will have a lower priority.

ERP II 15.12-2

We will develop that necessary science to support eventual stream-specific flow targets.

East San Joaquin Basin Ecological Management Zone

ERP II 16.0

We concur. Our knowledge of these streams is limited to the considerable recent work done on salmon. By proposing the Tuolumne River as a demonstration stream, we have given it the priority to conduct the detailed analysis necessary in order to more fully plan to restore its ecological health. Work on the Merced and Stanislaus Rivers will benefit from the in-depth study of the Tuolumne. This section will be revised during Phase III of the Program.

Descriptions of Ecological Management Units

ERP II 16.3-1

We agree that the hyacinth was a problem. We find the habitat to be degraded for a number of different reasons.

We have made the change.

Our adaptive management process is established to increase the degree of scientific certainty, not only on the Merced River, but for the entire ecosystem. Our ecosystem-based approach is designed to deal with problems associated with ecological processes, habitats, and stressors that affect chinook salmon throughout their life cycle. Anything we may study or any project we might implement will be coordinated with the Merced Irrigation District.

We think that it is appropriate to cite all the material we evaluated.

We would like to verify this model and use it to evaluate temperature stress reduction opportunities on the Tuolumne River.

Our statement includes the qualifier “the presence of distinct anadromous runs of late fall-run chinook salmon is not confirmed.”

We have identified 36 small irrigation pump diversions below La Grange Dam.

Visions for Ecological Management Units

We are aware of the lack of information on steelhead and the difficulties of their restoration. Until we know more about the possibilities, we believe that it is appropriate to consider steelhead as a possible, but unlikely, candidate species.

Much less is known about the effects of diversions in the San Joaquin River watershed. Because the San Joaquin River supports only the fall run, screens on agricultural diversions may not be cost effective. The juvenile fall run usually migrate prior to the irrigation season. We intend to conduct further evaluation before investing in a large-scale screening program.

ERP II 16.5-3

Our vision includes taking actions that may allow steelhead to repopulate the Tuolumne River.

ERP II 16.5-4

We intend to work with these agencies to implement their plans.

ERP II 16.5-5

We concur.

ERP II 16.5-6

We concur.

ERP II 16.5-7

Increased survival of naturally spawned fish is our first priority. Artificial propagation is not.

Visions for Reducing or Eliminating Stressors

ERP II 16.8

We can conduct the evaluation as part of our adaptive management process.

Visions for Species

ERP II 16.9

We made the addition.

Integration with Other Restoration Programs

ERP II 16.10-1

We agree with your comment. Most of our coordination has been through the Tuolumne River Trust and the irrigation districts. We will include the Joint Powers Authority in the future.

ERP II 16.10-2

Comment noted.

ERP II 16.10-3

The change has been made.

ERP II 16.10-4

We have identified the agreement as the SJRA.

ERP II 16.10-5

The change has been made.

ERP II 16.10-6

We concur. Many of our proposals for the Tuolumne River are complementary to the Tuolumne River Regional Park.

Restoration Targets and Programmatic Actions

ERP II 16.12-1

Please refer to the “East San Joaquin Basin Ecological Management Zone” section in Volume 2 of the ERPP. Under the heading of “Central Valley Streamflows,” you will see specific flow targets for the Stanislaus, Tuolumne, and Merced Rivers. These targets are included in the “Central Valley Streamflow Section” in Chapter 16 in Volume 2 of the ERPP.

ERP II 16.12-2

Please see response ERP II 16.12-1 above.

ERP II 16.12-3

The ERP target flows for the major San Joaquin tributaries were developed by agency scientists familiar with the species, habitats, and constraints on those streams. The differences in detail relative to water-year classifications are a function of incomplete scientific understanding. Each of these rivers will undergo a complete tributary assessment in Phase III of the CALFED Program.

ERP II 16.12-5

We concur.

ERP II 16.12-6

The target is programmatic and subject to revision.

ERP II 16.12-7

Lands owned by the state will not be purchased unless the current or planned use is incompatible with ecosystem restoration and the state agency owning the land is a willing seller.

ERP II 16.12-8

Screening 50% of the diverted water volume at diversions in the spawning area of salmon and steelhead will help to define further screening needs. Alternatives might be to eliminate or relocate these diversions.

ERP II 16.12-9

We disagree. Our targets are for planning purposes and will provide a framework for water development or purchases.

ERP II 16.12-10

All of our objectives relative to temperature identify existing limitation and call for “cooperative evaluation.”

ERP II 16.12-11

We have made the change.

ERP II 16.12-12

The proposed programmatic actions will be further developed and scientifically justified before implementation.

ERP II 16.12-13

We included a temperature target to provide for over-summering steelhead. We have concluded it may be impossible to achieve a 60 degree Fahrenheit summer target. We have removed this target and will focus on more in-depth modeling to determine whether it is possible. We will conduct the modeling in Phase III of the CALFED Program.

ERP II 16.12-14

It is our intent to further evaluate temperature objectives and the possible impact of their implementation.

Visions for Species

ERP II 17.7-1

We have made the additions.

Volume III: Strategic Plan for Ecosystem Restoration

Environmental Documentation

The CALFED Program is currently in what is referred to as Phase II, in which the CALFED agencies are developing a Preferred Program Alternative that will be subject to a comprehensive programmatic environmental review. This report describes both the long-term programmatic actions that are assessed in the June 1999 Draft Programmatic EIS/EIR, as well as certain more specific actions that may be carried out during implementation of the Program. The programmatic actions in a long-term program of this scope necessarily are described generally and without detailed site-specific information. More detailed information will be analyzed as the Program is refined in its next phase.

Implementation of Phase III is expected to begin in 2000, after the Programmatic EIS/EIR is finalized and adopted. Because of the size and complexity of the alternatives, the Program likely will be implemented over a period of 30 or more years. Program actions will be refined as implementation proceeds, initially focusing on the first 7 years (Stage 1). Subsequent site-specific proposals that involve potentially significant environmental impacts will require site-specific environmental review that tiers off the Programmatic EIS/EIR. Some actions, such as recreation of shallow-water habitats in the Delta and Suisun Marsh, also will be subject to permit approval from regulatory agencies.

ERP II viii-1

Any land use change brought about by the implementation of the ERP will be proceeded by the appropriate level of environmental impact documentation. Appropriate mitigation and assurances will be included.

ERP II viii-2

The comment requests provisions to compensate landowners and others for impacts arising from projects to restore the ecosystem. Each program project will undertake the appropriate level of analysis, disclosure, and mitigation required by CEQA, NEPA, and regulatory programs.

ERP II viii-5

The money spent to date in the Restoration Coordination Program has been to implement ecosystem restoration actions while the programmatic environmental documents are being finalized. Conditions outlined in the proposal solicitation include that projects cannot prejudice the ultimate decision of the long-term CALFED Program. Any projects with regulatory conditions or mitigation requirements are evaluated on a case-by-case basis.

ERP II viii-6

CALFED's proposal solicitation process contains several steps. Copies of proposals that describe the project applicant, the cost of the project, and a complete project description are available both from the CALFED office and now on compact disc.

Chapter 1. Introduction

ERP III 0-1

The combination of our goals, objectives, indicators of ecological health, and the adaptive management process will allow us to identify progress and to define success.

ERP III 0-2

The ERP is a comprehensive effort to restore health to the Bay-Delta ecosystem. It is not a land grab.

ERP III 0-3

We are using members of the original core team and other consulting scientists to revise the Strategic Plan.

ERP III 0-4

The types of assurances being considered are discussed in Chapter 7 in the MSCS.

ERP III 0-5

Easements are our preferred means to attain ecosystem benefits on agricultural lands. In-lieu taxes will be funded and paid where appropriate.

ERP III 0-6

We do recognize conflict between ongoing agricultural production and the need to reclaim some agricultural land for habitat restoration. While we have made a commitment to minimize this reclamation, it cannot be avoided. We have no intent to “sacrifice the agricultural community.”

ERP III 0-7

Goals for species, the science program, and Stage 1 actions to deal with stressors are described in the Strategic Plan.

ERP III 0-8

We have established an ERP Focus Group to help us with this task.

ERP III 0-9

Please refer to the Strategic Plan.

ERP III 0-10

We agree that it is desirable to align all agency restoration and mitigation programs into a single and well coordinated Bay-Delta/Central Valley ERP. However, doing so is well outside the scope of the CALFED Program. Further, it would be impossible to do so prior to the anticipated date of filing the ROD. This specific recommendation would most likely be accomplished as a follow on to the ROD.

ERP III 0-11

We concur with the recommendation. The MSCS and the ERP have been merged. We propose that the fish and wildlife agencies adopt the ERP as the recovery plan for listed species or as the official means to achieve recovery.

ERP III 0-12

A policy decision was made to emphasize the CALFED Program actions slated for the south Delta geographic area in early Stage 1 of the implementation program. The ERP actions proposed for implementation in that area are intended to establish new habitat in order to take advantage of opportunities for synergy and to address many of the scientific uncertainties identified in the Strategic Plan.

ERP III 0-13

These comments were prepared in October 1997 prior to the development of the Strategic Plan. Please refer to that plan.

ERP III 0-14

Implementation of the ERP is centered around a science-based adaptive management process. Revisions to the plan will continue throughout the implementation of the program.

ERP III 0-15

Please refer to the Strategic Plan.

ERP III - vi

We have followed the advise of both the expert panel and the core team. We continue to revise the Strategic Plan and to integrate their advise.

Relationship of the ERP to the CALFED Bay-Delta Program Mission

ERP III 1.1-1

The ERP is intended to provide a resolution to the ongoing conflict between the need to protect the environment and to provide for economic opportunity. It is but one of eight major programs identified by CALFED as important.

The Need for Restoration

ERP III 1.4-1

Actions to improve environmental values will not threaten water rights, water supplies, or flood protection in northern California. The ERPP recognizes existing constraints. We do not have the authority to take water rights, and it is a Program objective to improve water supplies. We intend to incorporate flood management improvements in our efforts to set back levees and enhance the use of flood bypasses as a surrogate for natural

floodplains. Our proposals for flow improvements are far below the design capacity of all physical flood management facilities.

Our riparian forest acquisition and development efforts are focused on the unleveed portion of the Sacramento River. We continue to recognize hard points and infrastructure as constraints to ecosystem restoration. We will perform any appropriate analysis requested by the State Reclamation Board or the Corps as we apply for permits within their jurisdiction.

ERP III 1.4-2

There appears to be a widespread misconception that the ecosystem restoration proposed by CALFED intends to return California to a condition that existed prior to development. That is not the case. We have acknowledged existing constraints to ecosystem restoration. That acknowledgment includes a need to protect existing infrastructure, often referred to as “hard points,” along our rivers and streams.

What is Ecosystem Restoration?

ERP III 1.5-1

We agree, but would argue that restoration will not occur without public support and identification with benefits.

ERP III 1.5-2

We continue to view flood management, water supply, power generation, and recreation as valuable public benefits of dams.

ERP III 1.5-3

The entire CALFED Program is intended to establish a balance between competing needs.

Chapter 2. Ecosystem-Based Management

ERP III 2.0-1

The ERPP goes well beyond existing legal requirements for restoration.

The Advantages Ecosystem-Based Management

ERP III 2.1-1

CALFED is committed to the development and use of equitable cooperating landowner assurances that encourage landowners and water managers to voluntarily cooperate in restoration efforts. The MSCS provides an outline of this policy.

The suggestion that regulatory agencies carry out mitigation at their sole or partial cost is contrary to public policy. It would amount to a public subsidy of private enterprise.

Flood-prone lands are the focus of most of our ERPP. These are the areas where we feel we can make the greatest level of progress in restoration with the least economic disruption.

ERP III 2.1-2

The ERPP is our commitment to change and rehabilitation.

Elements of Ecosystem-Based Management

ERP III 2.3-1

We agree.

Addressing the Uncertainty Inherent in Natural Systems through Adaptive Management

ERP III 2.4-1

CALFED has acknowledged the scientific uncertainty associated with restoration of the Bay-Delta Ecosystem. Our adaptive management program is designed to address this uncertainty. We are currently addressing many of the identified uncertainties and will convene a public peer review process to discuss the results.

ERP III 2.4-2

We concur. We have funded the U.S. Geological Society for some preliminary work on this question and will follow with more in Phase III of the CALFED Program.

Chapter 3. The Adaptive Management Process

ERP III 3.0-1

Implementation of the ERPP does include data collection, analysis, and adaptive management. Our process of project funding allows us to evaluate the cost and probable benefits.

ERP III 3.0-2

The process for determining “expected results” is a component of adaptive management. The process is described in Chapter 3 in the Strategic Plan.

ERP III 3.0-3

We have designed the adaptive management program to follow a rigorous scientific design based on testable hypotheses and conceptual models.

ERP III 3.0-4

In an effort to add more scientific rigor to the ERPP, we have initiated a “white paper process.” Through this process, evaluations by independent scientists will be prepared, peer reviewed, and discussed in a public process. Additionally, the adaptive management process is intended to reduce areas of scientific uncertainty.

ERP III 3.0-5

We recognized the uncertainty and have developed an adaptive management process to reduce and deal with uncertainty.

ERP III 3.0-6

Adaptive management is the process we will use to make changes in ERP targets and actions. These changes will be analyzed in future environmental documents.

ERP III 3.0-7

We most certainly agree that there is scientific uncertainty in this ecosystem. Our adaptive management process is specifically designed to address this issue. As to the California Department of Food and Agriculture's (CDFA's) statement about striped bass, we do not agree. Striped bass, salmon, and steelhead have co-existed in this ecosystem for over 100 years. They have also declined together. We would like to meet with CDFA's experts to discuss their opinion.

ERP III 3.0-8

Please see responses ERP III 3.0-7 and ERP III 3.0-12.

ERP III 3.0-9

The Strategic Plan is intended to be a "dynamic framework" that will be continuously refined. Additional work on quantified objectives and refined actions and targets is underway. The adaptive management process will incorporate the recommendations of future scientific reviews to set priorities and refine goals and objectives.

ERP III 3.0-10

The ERP has begun the process of scientifically identifying these needs. Our "white paper process" is compiling existing data and opinion. This will lead to further research and experiments that are needed to further refine the necessary information.

ERP III 3.0-11

Our adaptive management process will provide the suggested assessment.

ERP III 3.0-12

Areas of scientific uncertainty and the process to resolve controversy are key elements of the scientific review program and the adaptive management process.

ERP III 3.0-13

Each of our streamflow augmentation projects will be evaluated under the adaptive management process.

We concur on the need for these studies.

Defining the Problem

ERP III 3.1-1

Each project implemented will include a testable hypothesis, a conceptual model, and a monitoring protocol to measure progress toward our goals. The restoration program is the most comprehensive and aggressive restoration program ever proposed in California.

Developing Conceptual Models

ERP III 3.3-1

Additional conceptual models are being developed in the “white paper process.”

Defining Restoration Actions

ERP III 3.4-1

This is being done as part of the Strategic Plan refinement and the “white paper process.”

ERP III 3.4-2

This is one of several topics being addressed in refinements to the Strategic Plan.

ERP III 3.4-3

In Stage 1, the ERP proposes to acquire about 100,000 acre-feet. The primary focus will be on those smaller tributary streams not covered by the CVPIA allocation. Adaptive management will be applied.

Monitoring Restoration Actions

ERP III 3.5-1

The linkage between the ERP and the Comprehensive Monitoring, Assessment, and Research Program (CMARP) is described in Chapter 3 in the Strategic Plan. The adaptive management program completely depends on the monitoring and assessment developed under the CMARP.

The linkage between the ERP and MSCS is twofold: (1) the ERP and MSCS overlap with regard to the objectives of recovery and conservancy; and (2) the MSCS will be the vehicle to identify specific mitigation needs of the CALFED Program, and the ERP will provide the planning and implementation framework to carry out the mitigation.

ERP III 3.5-2

Each project carried out under the ERP will be monitored for results. The detailed plans and project-specific EIRs will be prepared in Phase III of the Program. Habitat is the place or environment where a plant or animal lives.

ERP III 3.5-3

The CMARP is the monitoring program for the ERPP. The results of this monitoring will be analyzed and used in the ERPP adaptive management process.

ERP III 3.5-4

We agree, especially in the Delta where real-time monitoring can reduce impacts to other water users. Each monitoring program element will be specifically designed to meet the need and to test the conceptual model.

Chapter 4. Goals and Objectives

ERP III 4.0-1

The specific goals and objectives of the ERPP are set out in Chapter 4 in the Strategic Plan. Numerical targets for species or habitats are articulated in Volume 2 of the ERPP.

ERP III 4.0-2

Large, self sustaining populations supported by healthy ecological processes and a large variety of intact and functioning habitats is optimal.

ERP III 4.0-3

California has undergone irreversible change since the early 1940s. It is virtually impossible to restore the natural ecological conditions of that period.

Development of CALFED Program Mission and Objectives

ERP III 4.1-1

NHI does not provide any suggestion as to which objectives it feels are redundant.

ERP III 4.1-2

Striped bass are included in ERPP Goal 3, which deals with harvestable species.

ERP III 4.1-3

ERP Goal 6 deals with contaminants. We have provided over \$3 million for an early and high-priority investigation of mercury contamination.

CALFED Ecosystem Restoration Goals

ERP III 4.2-1

The goal for steelhead trout as a priority group 1 species is to restore self-sustaining Central Valley steelhead to Central Valley streams and the Bay-Delta estuary. The restoration of self-sustaining populations of steelhead of natural origin is our goal. In our long-term objective statement, we said “Numbers of fish of natural origin should exceed in most years the estimated population level in the early 1960s: 40,000 adult spawners annually.” We have not set 40,000 fish as an upper limit or ceiling. We will rely on monitoring, scientific evaluation, and the adaptive management process to achieve our goal. We will continue to evaluate the feasibility of removing dams and other barriers to migration, and the expanded use of fish ladders and bypasses. We will use population goals in the MSCS as the basis for recovery. Please also see response ERP I 4.3-2.

ERP III 4.2-2

When our goals are converted to specific population numbers, we find that most scientists agree that these were the populations that existed in the 1960s prior to the major impacts of the water projects.

ERP III 4.2-3

The loss of ecosystem integrity was the basis for the development of the goals.

ERP III 4.2-4

Your objection is noted. Our intent is to manage a striped bass population that does not result in detriment to threatened or endangered species.

ERP III 4.2-5

We concur. This concept is embodied in our goals.

ERP III 4.2-6

We concur. Our statement referring to non-consumptive use includes the natural heritage value.

ERP III 4.2-7

We fully recognize the changes brought about by human change. Where possible, the ERPP proposed to reverse those changes; in most cases, however, we can only reduce the impact.

ERP III 4.2-8

Where we are dealing with species that do not depend on the Bay-Delta ecosystem for a substantial portion of their life cycle, we will take actions to contribute to their recovery.

This comment is directed at the preliminary version of the ERPP, “Volume 3: Vision for Adaptive Management.” Subsequent to its release, CALFED ceased further development of Volume 3. Instead, CALFED convened the Strategic Plan core team of scientists to develop the Strategic Plan for Ecosystem Restoration. Presently, the species designation in the ERPP includes the species identified in the MSCS for “recovery,” “contribute to recovery,” and “maintain.” The ERPP also includes two additional designations: “enhance and/or conserve biotic communities” and “maintain and/or enhance harvested species.” Under these designations, striped bass is treated as a harvested species for which CALFED will undertake actions to maintain the species at levels that support or enhance sustainable harvest rates. A key to maintaining harvestable surplus levels is to recognize the need to recover, contribute to recovery, or maintain other species.

This comment is directed at the preliminary version of the ERPP, “Volume 3: Vision for Adaptive Management.” Subsequent to its release, CALFED ceased further development of Volume 3. Instead, CALFED convened the Strategic Plan core team of scientists to develop the Strategic Plan for Ecosystem Restoration. The Strategic Plan has elevated the concern for foodweb organisms, particularly the adverse effects of non-native invasive species such as the Asian clam. ERPP Strategic Goal 5 addresses non-native invasive species. This goal is to “prevent establishment of additional non-native species and reduce the negative biological and economic impacts of established non-native species.” This goal also includes 10 strategic objectives that will direct the types of management actions and research undertaken during Stage 1 implementation.

CALFED Ecosystem Restoration Objectives

The ERPP and the MSCS do have the same recovery goals for the suite of species evaluated in the MSCS.

Relationship of Goals, Objective, Targets and Actions

The ERP is one of the most aggressive restoration programs ever developed. The targets will be measured against indicators of ecosystem health.

Chapter 5. Implementing the ERP

At the programmatic level, the CMARP and the ERP were developed on separate tracks. Chapter 5 in the Strategic Plan addresses project selection criteria and the process for using science to address critical uncertainties. When specific monitoring or research needs are identified, the ERP budget will provide the necessary funding support.

Implementation of the ERPP will focus on habitat restoration on public land as a first priority. The wildlife-friendly agricultural element of the ERPP is a financial incentive-based program.

ERP III 5.0-3

We concur. Our restoration coordination program and adaptive management process are designed to make those evaluations.

ERP III 5.0-4

Our policy will be implemented on a site-by-site basis. We will work only with willing sellers. We do not anticipate any need to acquire land currently planted to citrus trees. The targeted acreages are specified by ecological zone in Volume 2 of the ERPP.

ERP III 5.0-5

CALFED is in the process of developing its Water Management Strategy. For the ERPP, this will include developing priorities, an acquisition strategy, coordination with the CVPIA and the EWA and the relationship with regulatory programs.

ERP III 5.0-6

CALFED has committed to following the agreements reached in the SB 1086 process. The MSCS discusses the types of assurances being considered, including cooperating landowner assurances.

ERP III 5.0-7

We concur.

Refining the List of ERP Actions for Stage 1 of Implementation

ERP III 5.2-1

We are continuing to refine the ERP. Our intent is to achieve the restoration goals with minimal impact to agriculture and recreation.

Critical Uncertainties and Impediments to Restoration

ERP III 5.5-1

We identify the natural- and human-caused variability in flow regimes as an area of uncertainty requiring further investigation.

ERP III 5.5-2

This means we acknowledge our inability to restore this ecosystem to what it was prior to human intervention.

ERP III 5.5-3

We recognize the constraints and limited opportunities to restore the ecosystem. Our objectives are to achieve what is realistic.

Scientific uncertainty is addressed in the ERPP. A process and means to reduce uncertainty are imbedded in the adaptive management process. Monitoring will include assessment at all trophic levels.

This comment was provided in 1997 before the Strategic Plan was prepared. Foodweb concerns are now highlighted among the areas of scientific uncertainty discussed in Chapter 5 in the Strategic Plan.

Seizing Upon Restoration Opportunities

We concur.

Regulatory Compliance

The ERPP is not exempt from any regulatory process or law. Every project will be evaluated under CEQA and/or NEPA. Each project will be carefully and thoughtfully planned and executed. Impacts will be avoided or properly mitigated.

The commentor requests streamlining for the permitting of already authorized flood control and bank protection projects on the Sacramento River. Most currently authorized levee maintenance and repair projects carried out by counties or local districts are not part of the CALFED Program and are outside the scope of the EIS/EIR. For CALFED-funded projects, such as parts of the Sacramento River meander project, CALFED is currently investigating methods to acquire needed permits more efficiently, while still allowing full regulatory agency review.

ERPP projects are required to comply with the state and federal ESAs, CEQA, NEPA, and the Clean Water Act as well as with other regulatory programs.

Chapter 6. Institutional Structure and Administrative Considerations

Volume 2 of the ERPP describes over 100 programmatic actions for the Delta. The phasing and partnering of restoration is described in the Strategic Plan.

ERP III 6.0-2

Most of the rationale and recommendation used to develop the ERP was based on existing plans or programs. They are referenced in the ERPP. Our adaptive management program will fold in the results of existing restoration efforts.

ERP III 6.0-3

Implementation of the ERP will be conducted at the local level. All land use change will be preceded by the appropriate level of environmental review and documentation. Please also see response IA-7.14-1.2.

Institutional Structure

ERP III 6.1-1

CALFED recognizes the need and benefits from coordination and potentially the consolidation of the many restoration efforts underway in the Central Valley. We are proposing an institutional structure that will make that objective possible. CALFED currently is mapping habitat restoration funded by CALFED and other restoration programs. This mapping will enable assessment of cumulative land use change in future project-specific environmental documents. It also will help us to document CALFED targets achieved by other programs. Please also see response ERP 0-16.

ERP III 6.1-2

We concur. The process we have begun involves several steps. First, we are taking the concepts, objectives, and targets in the ERPP through an in-depth scientific analysis. This helps us to be much more specific in our description of objectives. Next, we will present these objectives to a regional conservancy, resource conservation district, or other landowner groups and the county planning departments. It is at this stage that we hope to receive input as to the feasibility of implementing our objectives and alternatives that match the needs of the landowners and water users. When projects have been designed at the local level, we will prepare the appropriate environmental documents to disclose possible impacts, appropriate mitigation, and alternatives—if they are available. These environmental documents will be circulated for public review. If there is interest, we will host a public meeting to discuss the proposals. In addition to the standard environmental documents, we anticipate the need for assurances that our efforts at environmental restoration will not impose ESA burdens on those cooperating in, or neighboring, our projects. We are calling these assurances a “good neighbor agreement.” Each agreement will need to be custom designed to fit the circumstances and location.

Public Involvement

ERP III 6.2-1

All ecosystem projects and programs will include local participation and will comply with local ordinances.

ERP III 6.2-2

The CALFED ecosystem restoration coordination program requires that all project applicants coordinate with local government. Butte County is the only county that has allocated staff to closely coordinate with the ERP.

That coordination has been successful, and we expect it to improve. CALFED does not have funds sufficient to fund additional participation by local government.

ERP III 6.2-3

The ERPP possesses no regulatory authority and does not seek such authority. Implementation of the ERPP will be coordinated with county government.

ERP III 6.2-4

We agree.

Public Outreach

ERP III 6.3-1

This is a good recommendation, and we will follow up with Colusa and other affected counties.

ERP III 6.3-2

Our effort to solicit public opinion and comment is very comprehensive.

Scientific Review

ERP III 6.4-1

We agree that independent science will be an important part of implementation of the ERPP. Please refer to page 47 in the June 1999 Strategic Plan for a discussion of this element of the program.

ERP III 6.4-2

We outline our scientific review process in Chapter 6 in the Strategic Plan.

ERP III 6.4-3

We agree. Our ideas on a science panel and science peer review are included in Chapter 6 in the Strategic Plan.

ERP III 6.4-4

The science review of the program will be an ongoing function. The process and products of the review will be public.

ERP III 6.4-5

We agree. We will apply the best available science to the determination of need and management of water acquired for environmental purposes.

We agree.

Appendix A. Defining the Opportunities and Constraints: a Historical Approach

ERP III 7.0-1

Throughout the ERPP volumes, we discuss the many impacts to our fish populations. Appendix A in the Strategic Plan offers an in-depth historical perspective. Predation and competition are discussed as stressors in Volume I, Section 12.12.

The Importance of a Historical Perspective

ERP III 7.1-1

Appendix A provides a historical perspective and the constraints to ecological restoration.

Present Conditions and Trends

ERP III 7.3-1

The restoration to ecological health sought in the ERPP incorporates the actions included in the CVPIA and continued protections afforded the environment by all state and federal laws.

ERP III 7.3-2

CALFED is planning on continued coordination with the restoration element of the CVPIA. That coordination will include cost sharing for appropriate projects.

ERP III 7.3-3

Appendix A in the Strategic Plan was prepared in response to numerous requests for a historical perspective on changes to the Bay-Delta ecosystem.

ERP III 7.3-5

We have not prejudged the outcome of the hearings. We included this hearing as an important parallel process. The stated purpose of the hearing is to determine and allocate responsibility for Delta outflow requirements. We are fully aware of the negotiations associated with this hearing process and the possibility they may obviate the need for a protracted hearing.

Model of Contrasting X2 Relationships

ERP III 8.3-1

We agree that our simple landscape-level conceptual model of chinook salmon does not capture all aspects of juvenile fish movement associated with total influence. This figure was offered as an example.

Conceptual Model of Meander Migration in a Regulated River

ERP III 8.4-1

The model in Figure B-5 in the Strategic Plan is meant to describe river migration. We are not aware of any role played by temperature in this ecological process.

Appendix C. An Example of Adaptive Management Using Conceptual Models: Chinook Salmon and Deer Creek

Overview

ERP III 9.1-1

Your comment about the harvest fraction seeming excessive for San Joaquin natural fall-run chinook salmon appears misplaced. This section in the Strategic Plan describes an adaptive management example for Deer Creek, a tributary to the Sacramento River.

Background

ERP III 9.2-1

The ERPP does set restoration targets on a stream-by-stream basis wherever possible. Ocean harvest levels in a mixed-stock fishery must be aggregated.

Overall Conceptual Model for Spring-run Chinook Salmon

ERP III 9.3-1

Your comments relating to the potential behavior of salmon in the Mokelumne and Cosumnes Rivers may not be appropriate in a conceptual model developed for Deer Creek.

Appendix D. Draft Stage 1 Actions

ERP III 10-1

CALFED's effort to screen diversions on the Sacramento River has been a focus of early implementation. Approximately 80% of the volume of water diverted is now screened or will be soon. We believe that it is appropriate to evaluate the benefits of the projects in order to refine priorities.

ERP III 10-2

The comment recommends that Stage 1 actions focus on projects that are supported by strong scientific understanding. Nearly all of the early implementation actions funded to date focus on projects with a great deal of scientific certainty. An object of Stage 1 implementation is to reduce scientific uncertainty. We have included in the mix several actions specifically intended to shed light on the scientific uncertainty identified in Chapter 5 in the Strategic Plan.

ERP III 10-3

The draft Stage 1 actions are intended to address most, if not all, of the issues and opportunities identified in the Strategic Plan. The rationale for these actions is presented in the appendix to the Strategic Plan. The process of identifying, selecting, and funding projects is vested in the restoration coordination program as supported by the Ecosystem Restoration Roundtable.

ERP III 10-4

The ERPP is not intended to be a means to prevent growth in the Secondary Zone of the Delta or anywhere else.

ERP III 10-5

The programmatic actions proposed for the Yolo Bypass were developed by experts dealing with species in addition to splittail. They will be refined in the implementation phase of the Program.

ERP III 10-6

We agree and have funded over \$3 million of additional research.

ERP III 10-7

The Stage 1 actions proposed cover the entire Delta.

ERP III 10-8

Central and west Delta Stage 1 actions include the study of potential habitat in Big Break.

ERP III 10-9

We will try to make the appropriate cost comparison.

ERP III 10-10

The actions proposed for Stage 1 implementation are intended to generate measurable ecological benefits and to provide insight essential to adaptive management. Striped bass are identified as an important sport fish that will be managed in concert with salmon recovery. We agree that Centerville Dam and the water diverted to it may cool Butte Creek.

ERP III 10-11

The ERPP does focus on existing public land. All projects will receive the appropriate analysis under CEQA and NEPA.

ERP III 10-12

The estimated cost of ERPP Stage 1 actions is \$900 million. Congress authorized \$430 million in funding and the state authorized \$450 million through Proposition 204.

ERP III 10-13

All of the suggested actions are contained in Volume 2 of the ERPP as either targets or actions. While we agree that expanding the Stage 1 (first 7 years) list of actions is desirable and would complement many existing programs, we cannot do so. We do not have the staff or the budget to more than double our Stage 1 activities. Our primary focus in Stage 1 is to reduce the uncertainty surrounding ecosystem restoration in this ecosystem. We have chosen Stage 1 actions to accomplish that goal. We are not strictly limited by the Stage 1 actions. If opportunities present themselves, we will pursue them.

ERP III 10-14

Acquiring water for flow augmentation is an action in Stage 1.

ERP III 10-15

We agree.

ERP III 10-16

The concept of the “early action bundles” was developed to facilitate implementation by grouping proposed actions for the whole of the CALFED Program into geographic areas. Many commentors have found fault with this concept. For the ERPP, the Strategic Plan and the scientific uncertainties will be the principal means for prioritizing actions.

ERP III 10-17

Streamflow targets will be met through the acquisition of water from willing sellers and newly developed water. At the programmatic level, it is not possible to identify specific targets that will be met. We will pursue about 100,000 acre-feet of streamflow augmentation.

Draft Delta Stage 1 Actions

ERP III 10.1-1

The comment requests we expand the Stage 1 action list without suggestions as to how to do so. In light of the time and budget requirements necessary to implement a program like the ERP, the Stage 1 actions proposed are very ambitious.

ERP III 10.1-2

The comments suggest that we should incorporate elements in Stage 1 that complement existing programs. In the introduction to Appendix D of the Strategic Plan, we use the phrase "...CVPIA, or other restoration programs..." By this, we mean all programs that have bearing on the restoration of ecological health of the Bay-Delta system.

ERP III 10.1-3

CALFED has adopted a policy to prioritize restoration on public lands first; second through the use of easements; and third, only if necessary, through the acquisition of private land from willing sellers.

ERP III 10.1-4

The actions selected for implementation in Stage 1A and throughout Stage 1 were selected to address the areas of scientific uncertainty identified in the Strategic Plan, in order to aggressively restore habitats in the Delta and to carry out full-scale demonstration programs on three very different tributary streams. Our use of the term "bundling" has generated some misunderstanding. We are simply grouping projects from the various CALFED programs to gain efficiency in environmental documentation and permitting.

ERP III 10.1-5

We concur.

ERP III 10.1-6

We have carefully considered the use of levee setback to increase habitat. Setback levees are expensive and may pose some flood management risk. We are further studying the feasibility of their use.

ERP III 10.1-7

We concur. We are developing a specific strategic plan to document our approach to dealing with non-native invasive species.

ERP III 10.1-8

We agree. Boat speed restriction and enforcement is a county responsibility. If the need is demonstrated, the ERP might fund additional enforcement.

ERP III 10.1-9

We concur. We have started a study to determine the benefits and efficacy of screening small Delta diversions.

Draft Sacramento River Basin Stage 1 Actions

ERP III 10.2-1

Agricultural fields serve as surrogate upland habitats. Our objective is to use "natural" habitat to provide a mosaic

of inter-related upland and wetland habitats wherever possible. In some cases, however, we will need to rely on modified practices on agricultural land.

ERP III 10.3.3-1

If we were to utilize a 100% hatchery tagging program as you suggest, a constant fraction tagging effort would be redundant.

ERP III 10.3-2

We concur. As we move into the implementation phase of our program, we will become more and more dependent on regional organizations such as conservancy and county planning departments to help us refine and implement the plan.

ERP III 10.3-3

The flows of the ERPP will be coordinated with the CVPIA. There are ecological needs not addressed in the CVPIA. These are addressed in the ERPP.

ERP III 10.3-4

Both the negative and positive impacts of off-stream storage have been considered and are discussed in the Programmatic EIS/EIR.

ERP III 10.3-5

We concur. As we go forward with implementation, we will evaluate the need to artificially augment coarse sediment recruitment.

ERP III 10.3-6

Clear Creek has a dual problem with regard to riparian vegetation. We have encroachment into what was the active channel of the stream and the need to reestablish a dynamic corridor. These objectives are not in conflict but do require appropriate sequencing for implementation.

ERP III 10.3-7

We agree. Implementation of restoration along Mill Creek will be community based.

ERP III 10.3-8

Tributary-specific assessments are a critical first step in all of our ecological management zones.

ERP III 10.3-9

Our approach to identifying in-stream flow needs to be oriented toward the rehabilitation of ecological processes in the streams. This focus will help us to identify species needs and the potential for overlap.

ERP III 10.3-10

Acquisitions for in-stream flow augmentation will be subjected to subsequent project-specific environmental documentation and review.

Draft San Joaquin River Basin Stage 1 Actions

ERP III 10.4-1

We have made the correction.

ERP III 10.4-2

The VAMP experiment is focused solely on migration of chinook salmon. It does not address ecological processes or other species.

ERP III 10.4-3

We concur. We will use both easements and fee acquisition.